Space Utilization Study

City of Hooper Bay, Alaska

Michael L. Foster & Associates, Inc.

An Alaskan Owned and Operated Company

Architects • Engineers • Planners • Scientists
Surveyors • General Contractors

13135 Old Glenn Highway, Suite 200, Eagle River, Alaska 99577 Phone: 696-6200

April 24, 2008

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Mr. Raphael Murran, Administrator
City of Hooper Bay
PO Box 29
Hooper Bay, Alaska 99604

Final Report
Space Utilization Study
Hooper Bay, Alaska
MLFA Project No. HOOP-HOOP-001-0001

Dear Mr. Murran, Mayor Bell and City Council Members:

We are pleased to submit our final report for the *Space Utilization Study*, our response to your request for a Water Treatment Plant Usage Study and Utilization Plan for Other Vacant, City-Owned Buildings. It includes an Action Plan that shows what you must do to meet your goal of $34,000 in supplemental annual income.

Since we published our draft report on January 9 we have communicated several times with you, the Department of Health & Social Services, the Department of Commerce, Community & Economic Development and others about our findings. We are including some of this correspondence in Appendix B.

On behalf of MLFA, thank you for your hospitality in welcoming us to your community and for your assistance in getting information to us and helping us understand your needs and capabilities. We appreciate your confidence in us and enjoyed our visit with you on March 20.

Sincerely,

MICHAEL L. FOSTER & ASSOCIATES, INC.

Loren Leman

Loren Leman, P.E.
Vice President

Attachment: *Space Utilization Study* Report

SPACE UTILIZATION STUDY

CITY OF HOOPER BAY, ALASKA

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April 24, 2008

MLFA Project HOOP-HOOP-001-0001

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1.0 INTRODUCTION

1.1 PURPOSE

The City of Hooper Bay proposes to use space in its new water treatment plant and other City-owned buildings for productive economic activities consistent with the values, vision and goals expressed in its *Hooper Bay Community Plan*. It hopes to produce income for its water and sewer utility; provide for local employment; and create new opportunities in Hooper Bay by leasing space to tenants or providing the service itself. Potential tenants include local businesses, health care and other non-profit organizations, construction contractors, State and federal government, and others already present or expected to be working in Hooper Bay during the next several years.

Hooper Bay has seen considerable economic activity from the construction of its new school, sub-regional health clinic, water and sewer upgrades, a youth and elder cultural center, new church and youth center, seafood processing plant and boat maintenance facility, and response to the 2006 fire disaster. Additional road, trail, power, housing, water and sewer, and other improvement projects are anticipated. The City is wise to prepare for these.

This report is our documentation of research, community meetings, onsite observations, and communication with the City and potentially interested parties to help translate the values and vision of Hooper Bay into action.

1.2 APPROACH

The goal of this project is to produce a practical, common-sense plan for using some of the available City buildings to benefit the community as part of its plan for sustainable economic and social activities. The City, its village corporation, tribes, and numerous government agencies have invested a lot of money and labor into Hooper Bay. It makes sense to utilize new and aging facilities to continue to benefit the community by: 1) reducing or offsetting fees local residents would otherwise have to pay to operate its water and sewer systems; 2) providing services the community needs; and 3) providing employment and business opportunities for its residents.

Before it solicited our services, the City established a goal of $34,000 per year in net revenue from City-owned properties to supplement cash flow for its water and sewer fund. We agreed from the outset that this was aggressive. This study discusses the opportunities and challenges for accomplishing this goal, and includes an action plan to do it in Section 3.0.

For project kickoff, we met with community leaders and gathered information during a site visit in late August 2007. We also reviewed Hooper Bay's economic and community plans; documentation for several local projects; talked to entities that are working in and investing in Hooper Bay; communicated with potential tenants; reviewed Codes and other potential constraints; and analyzed costs to develop an approach that we believe is doable.

The project was divided into three tasks:

Task 1: Gather Data

- Reviewed and incorporated information from previous plans, including the *Hooper Bay Community Plan* (January 2006); *Hooper Bay Comprehensive Economic Development Strategy Plan* (July 2004); and other documents.
- During the first site visit met with City, Native Village of Hooper Bay, Native Village of Paimiut, and Sea Lion Corporation representatives, and other community leaders and potential users to discuss options and possible commitments for using space.
- Toured buildings, measured space available, noted conditions, and photographed them.
- Reviewed available new water treatment plant documents, and information about the old washeteria, old clinic and six other City-owned buildings.

Task 2: Evaluate Alternatives

- Identified potential users, partners, and competitors. The tenant possibilities include boarding for construction workers and other community visitors, storage, office space, day care, coffee shop or restaurant, and retail sales of building and fishing supplies. Evaluated and compared strengths and weaknesses, as well as constraints, limitations and concerns of using space for other income-generating uses.

- Considered power, fuel and utilities availability, cost, and reliability. Noted how transportation, availability of labor, marketing, maintenance and management will affect implementation of a plan.
- Evaluated available space, its condition, potential for productive use and projected rents and expenses. Identified needs for funding capital projects and operation and maintenance (O&M) expenses. Built a financial model around the City's goal of $34,000 in supplemental net income, using business planning guidance documents available from the Denali Commission and Department of Commerce, Community & Economic Development (DCCED).

Task 3: Present Findings

- Developed conclusions in an Action Plan and summarized findings in a January 9, 2008 draft report; produced 12 copies for City and DCCED review.
- Using comments from reviewers and other information exchanged at a Council/community work session on March 20, we made revisions and produced 20 copies of the final report. We are also providing electronic documentation of the report on two CDs—one for the City and one for the DCCED.

1.3 PROJECT TEAM

We kept the project team small and focused. Our project manager and primary researcher, author and presenter is Loren Leman, P.E., a vice president with Michael L. Foster & Associates, Inc., and former elected official. He was supported by Holly Morris, C.P.G., for business planning and Carl Grundberg, Professional Architect, for architectural and Code review, as well as other MLFA staff for report production. The City's contracting officer is Raphael Murran, its Administrator. Substantial assistance was also provided by Marc Cowart, the City's Operations Supervisor. Janet Davis is the contact for the Department of Commerce, Community & Economic Development.

1.4 SETTING

Hooper Bay's location, climate, and culture have guided and constrained its growth. Its unique location in the Yukon Delta National Wildlife Refuge, one of the best birding areas in the world, as well as its world-class artistry and craftsmanship, create incredible opportunities for it. But likewise, it faces other challenges, including its location. Its willingness to tackle the things it can change and work with those it cannot is an encouragement. It is still rebounding from a disastrous fire that destroyed much of the community in August 2006. The community was wise to accept assistance from those who offered it.

1.4.1 Geography and Climate

Hooper Bay is located in the middle of the Yukon-Kuskokwim delta at the Bering Sea coast, 500 miles west of Anchorage. The community is located on fine-grained silty and sandy soil underlain by nearly continuous ice-rich "warm" permafrost, surrounded by marshy tundra dotted with numerous ponds and lakes.

The developed part of the City is separated into two sections: 1) a reasonably compact development on gently rolling hills (the "old town"); and 2) a newer section in the lowlands to the west. This newer section now extends from the new school overlooking the Napareayak River and Slough to a local housing project known locally as Blueberry Subdivision. The airport lies a mile farther west, adjacent to the Bering Sea. Figure 1 shows the geographic setting for Hooper Bay.

The climate in Hooper Bay is considered maritime, with an average annual precipitation of 16 inches, including 75 inches in snowfall. Temperatures range from -25 degrees F in the winter to 79 degrees F in the summer. The Bering Sea is ice-free from late June through October, with winter ice pack and winds, generally from the northeast, contributing to more severe conditions the rest of the year.

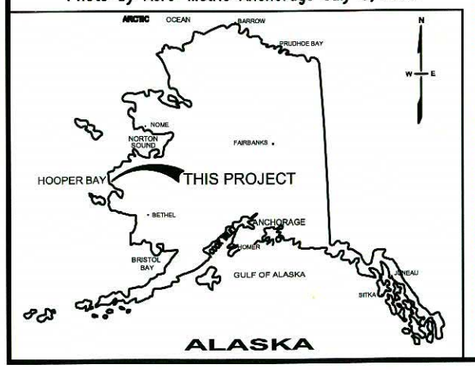
LAGOON
CEMETERY
SOLID WASTE DISPOSAL
NAPAREAYAK RIVER
VILLAGE RD.
LAGOON RD.
HOOPER ST.
SCHOOL
TOMAGANUK RD.
NANENG DR.
TUNDRA RD.
BLACKBERRY ST.
"BLUEBERRY" SUBDIVISION
TUNDRA DR.
AIRPORT RD.

N
E
W

CITY BUILDING IDENTIFICATION

1. NEW WATER TREATMENT PLANT (WTP) AND WASHETERIA
2. OLD CLINIC
3. OLD WTP AND WASHETERIA
4. ATCO BUILDING
5. OLD CITY JAIL
6. OCTAGON BUILDING
7. OLD LIBRARY/MENTAL HEALTH COUNSELING BUILDING
8. CITY SHOP
9. CITY GARAGE

Photo by Aero-Metric Anchorage July 5, 2007



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SCALE IN FEET

NOTE: THIS AERIAL PHOTOGRAPH HAS NOT BEEN ORTHOGRAPHICALLY CORRECTED. THE SCALE SHOWN IS APPROXIMATE.

SPACE UTILIZATION STUDY
HOOPER BAY, ALASKA

LOCATION MAP

JOB NO:	HOOP-HOOP-001-0001	DRAWN:	AM
DATE:	JANUARY 09, 2008	FILE:	FIG 1_SITE MAP.dwg

Figure 1

1.4.2 History

The community was first noted in historical records by E.W. Nelson of the U.S. Signal Service in 1878, less than a decade after the United States took possession of Russia's interests in Alaska. It was named after Captain Leighton Hooper of the U.S. Revenue Cutter *Bear*. The U.S. Census in 1890 recorded 138 people living in 14 homes. Despite major epidemics the community gradually grew. In its early days of recorded history it was better known by its Yup'ik Eskimo names *Askinuk* or *Askinaghamiut*, which refer to the mountainous area between Hooper Bay and Scammon Bay to the north. The name Hooper Bay became common after the local post office was established in 1934. To many locals today, the name for the community is Naparyarmiut, derived from the name for the nearby Napareayak River.

It is noteworthy that Hooper Bay is the largest remaining community in Alaska without community-wide piped water and sewer service. But it has been working on changing this distinction for more than the past decade—and soon will succeed. Water and sewer facilities, improved housing, a new school, health clinic, offices, and improvements for its fishing community are changing the face of Hooper Bay. Likewise, so is the response to the disastrous August 3, 2006 fire that destroyed its school, teacher housing, a store, 13 homes and several smaller structures over a total of 15 acres, displacing 250 people. The response from the community itself, State of Alaska, Federal Emergency Management Agency (FEMA) and the U.S. Department of Housing & Urban Development, Samaritan's Purse, Association of Village Council Presidents (AVCP) Regional Housing Authority, Red Cross of Alaska, the Salvation Army, other disaster response agencies, and many other organizations, churches, and individuals has been incredible.

Perhaps no volunteering has been as impressive as from the international mission relief organization Samaritan's Purse. When its President and CEO, Franklin Graham, visited Hooper Bay soon after the fire, he committed to helping it rebuild. Samaritan's Purse has fulfilled that promise by providing funds, materials and construction assistance for five new homes, a church and youth center, and was still working on local projects when we visited in August (see Samaritan's Purse information in Appendix C). The entire fire response is a great example of meeting needs of people as advocated by Alaska's Faith-Based & Community Initiatives.

1.4.3 Population and Culture

Hooper Bay has grown into the largest "traditional" village on the Yukon-Kuskokwim Delta. Its population of more than 1,115, ninety-five percent identified as Alaska Native or mixed ancestry, is young (Photo 1 behind the "Photos" tab). It has been steadily increasing and is expected to continue to do so. The new school, new and improved housing, piped water and sewer service, the new sub-regional health clinic, and economic opportunities are encouraging this growth.

While maintaining its Yup'ik heritage and strong dependence on a subsistence lifestyle, Hooper Bay is a "modernizing community" that has been moving toward increased participation in the "cash economy." The predominant language is English, although Yup'ik is still spoken widely, especially among the elders, and is being taught in the school. Traditional stories, dances and songs continue to be passed from the older to the younger generation, as are the skills of basket and doll making, ivory and mask carving, skin sewing and subsistence harvesting. As in nearly all rural Alaska communities, sports and playing outside are very important in the lives of its young people (Photo 2).

1.4.4 Community Organizations

The City of Hooper Bay was incorporated in 1967 as a second-class city in the "unorganized borough" of Alaska. It has a seven-member City Council and a "strong mayor" form of government. Council policy is implemented by a City Administrator and staff. Two federally recognized tribes—the Native Village of Hooper Bay and the Native Village of Paimiut--are located in Hooper Bay. So is the Sea Lion Corporation, the village "for-profit" corporation organized under the Alaska Native Claims Settlement Act (ANCSA). Each of these contributes to community leadership, its social structure and economy.

Other organizations with substantial interest and influence in Hooper Bay include Calista Native Corporation; Yukon Kuskokwim Health Corporation (YKHC); the Association of Village Council Presidents; the Lower Kuskokwim Economic Development Council; the Coastal Villages Region Fund; the Lower Yukon School District (LYSD); Alaska Village Electrical

Cooperative (AVEC); United Utilities and Unicom (now owned by GCI); State and federal government; as well as churches and other social structures.

1.4.5 Infrastructure and Services

With the exception of community-wide piped water and sewer and a road connection to other parts of the region, Hooper Bay has nearly all of the infrastructure and services typically found in smaller communities in Alaska. Housing is being expanded and modernized (Photo 3), particularly in the aftermath of the August 2006 fire. However, it still is in short supply.

Power is supplied by AVEC using diesel-powered generators. AVEC is planning a windmill project to supplement this power and reduce dependence on this very expensive source of electricity. Fuel is available from Crowley Marine Services and is stored locally in tanks owned by Crowley, AVEC, LYSD, the City and the Alaska Army National Guard.

Local roads are being improved to handle increased traffic, dominated by ATVs and snowmachines. The airport has a 3,300-feet by 75-feet runway with medium intensity runway edge lighting and 300-feet safety area at each end. It is impacted by seasonal wave- and wind-driven erosion and seasonal flooding of its access road. These were especially noticeable during a major Bering Sea storm event in 2004. The Department of Transportation & Public Facilities is considering improvements to the existing airport and even possible relocation of it to a more secure site farther inland. Several airlines provide scheduled and charter service, primarily through Bethel.

Groceries and other retail goods are available at three local stores. A modern post office serves the community. Health care is provided by the YKHC at a small clinic building (Photo 4) and a separate mental health counseling building. A new sub-regional health clinic and employee housing for it are under construction (Photos 5 and 6) and are scheduled to be completed by June 2009. However, they might be ready as early as December 2008. The new school (Photo 7) is a tremendous asset to Hooper Bay and is a center of many community activities. A nearby Youth and Elder Center is under construction and an adjacent church has a new youth center convenient to students (Photos 8-10).

However, the community lacks some of the amenities usually found in larger communities, including a restaurant, coffee shop, centralized day care, lumber and building supply store, airline ticketing, and a beauty salon/barbershop. Its hotel space is limited.

1.4.6 Planning Background

Hooper Bay is fortunate that it has attracted substantial interest from its citizenry in community planning. About 300 residents attended and participated in the first public meeting for its *Comprehensive Economic Development Strategy Plan* in March 2004. Through continued meetings and exchanges among interested participants, a plan with substantial "community buy-in" was developed. This economic plan has become the basis for advocating for several projects and led to the writing of the *Hooper Bay Community Plan* in January 2006.

One of the products from these earlier planning efforts was the development and adoption of a very clear vision statement for the community: ***To balance our subsistence lifestyle with a sustainable economy, compatible with our Yup'ik traditions, respectful of our land and our heritage, and supported by a well-educated, trained workforce and first-rate facilities.***

It is not our intent with this *Space Utilization Plan* to supplant the community planning work by others, nor to repeat it in detail in this report. Rather, we incorporated and built upon it, developing options for using City-owned buildings to advance the City's goal for supplemental income consistent with the community's vision statement.

2.0 BUILDING USES

During our August 28-30, 2007 site visit, we toured buildings either already owned by the City, or expected to come into City ownership soon. We followed up with site visits to some of these buildings during our March 20-21, 2008 trip to Hooper Bay. Marc Cowart accompanied us for most of these field visits. We noted conditions, measured space available, talked with tenants and took photographs of nine buildings identified by the City as having potential market value. Figure 1 identifies the location of each of these buildings.

Photographs of each building are provided behind the tab marked "Photos." Copies of field notes, with sketches, are in Appendix A. We communicated with several parties we believed might be interested in the disposition of the buildings. Copies of some of the written record from this communication are provided in Appendix B. A list of community and associated contacts is included in Appendix C.

All of the buildings currently provide at least some measure of economic or social benefit to the City. Some are expected to provide future economic benefit to the City—others will not. The following paragraphs describe each building, its existing use and potential disposition in more detail.

2.1 NEW WATER TREATMENT PLANT AND WASHETERIA

This new facility, housed in a 100-feet by 120-feet insulated metal building constructed on a concrete slab on grade, opened for public use in September 2007 (Photo 11). It is the finest facility in the City's inventory and is expected to provide service to the City for decades. Adjacent to the water treatment plant (WTP) is a 420,000-gallon treated water storage tank (Photo 12).

The space identified for potential leasing to a tenant is its second floor storage room, a 40-feet by 80-feet area, 2,900 square feet of which is usable (Photo 13). A part of this room is currently being used for equipment staging for the water and sewer expansion project—and will likely continue to be needed for the next four years, although some other storage for the project will be available in a satellite building for the vacuum pumping station. The WTP room has good

height, is clean, dry, heated and well-lighted. Because of building materials (Photo 14), it has reduced fire danger. The washeteria, showers, and sauna in the building make the WTP a "de facto" gathering center for the community anyway, so a use consistent with public availability makes sense.

A key disadvantage is accessibility. The second floor is currently accessible only by two flights of stairs and a cargo bay loading facility. If this space becomes a "public area," for example, a store, it will need either a ramp or an elevator to provide for access under the Americans with Disabilities Act (ADA) guidelines. Additionally, depending on the use of the space, an area of "refuge/assistance" on the second floor, with a telephone and drinking water, may be needed. If this space is converted into office use, the ADA access requirements will not apply because its total area is less than 3,000 square feet. The room currently does not have windows to the outside. If it were used as sleeping quarters, it will need an approved egress window for each bedroom (see International Building Code requirements in Appendix C) to enable anyone inside to get out in an emergency. The building's structural engineer designed the second floor with sufficient capacity for normal storage; however, if heavy storage is planned (for example, heavy building materials stacked high), use cannot exceed the design floor loading.

Another disadvantage is building security. Although the public has access to the washeteria/sauna/shower area, it does not have general access to the water treatment plant. Nor should it. If the City decides to change use of the second floor room, it will need to secure the water treatment and laboratory area.

We have assumed the State Fire Marshal will approve a request for a change in occupancy and that additional uses for this space will not result in a substantial increase in the insurance premiums for the WTP building. However, before the City commits to another use, it should notify its carrier and confirm what the conditions and charges will be. The additional cost, if any, should be incorporated into any new tenant lease.

We assume that about half of this area (1,500 square feet) could be made available for lease immediately, keeping the rest for City utility use. The identified new possibilities include storage, office space, food concessions, lumber and building supply, and boarding rooms. Depending on use, required modifications will range from minimal to $150,000. The most

expensive single item will be an ADA ramp attached to the outside of the building to access the second floor (Photo 15), estimated to cost $75,000. Because of the special "skin" of the insulated metal building, installation of egress windows and their frames will cost up to $6,000 each. For purposes of the Action Plan in Section 3.0, we have assumed minimal modifications will be made, consistent with "non-public" uses.

2.2 OLD CLINIC

This is a wood frame structure on piling, with a gross area of 1,700 square feet, an estimated 1,500 square feet of which are usable (Photo 16). It was built in the early 1970s and is now about 35 years old. It currently is leased to the YKHC at $4,700 per month (heating, janitorial and maintenance provided by the City) as a health clinic, but will become available for other uses when the YKHC moves into its new 12,000 square feet sub-regional clinic. This project is scheduled for completion in June 2009 but might be ready for occupancy as early as December 2008. The City currently does slightly better than breaking even with this lease arrangement.

The Old Clinic is located at a convenient location near the intersection of Tomaganuk Road with Airport Road, in the "newer" part of Hooper Bay. It currently has water and sewer service available to it—and a kitchen area. The building's condition is adequate, although some minor treatments will be necessary, for example, flooring improvements. The building is probably not well-insulated and shows evidence of some deformities in the structure. The City reports that it uses 70 gallons of fuel oil per week to heat it during the coldest parts of winter. Additionally, some of its adjacent boardwalk sections need repair. It has ADA access, although at 27 percent slope, the access ramp is steeper than allowed by current requirements (Photo 17).

We believe this building has potential for alternative uses without substantial modification, of course, depending on what those uses are. Suggested new uses include government offices, a restaurant/food take out facility, coffee shop, child care, airline ticketing, and dormitory/bed & breakfast. If used as sleeping quarters, an approved egress window will need to be installed in each bedroom at $3,000 apiece. We assume the building can otherwise be brought to "marketable" conditions for an investment of $15,000 in flooring, boardwalk and ramp repairs.

2.3 OLD WTP AND WASHETERIA

This 20-year-old facility is actually two wood structures linked by a covered and enclosed walkway, all on piling. It has been a water treatment plant and washeteria/shower/sauna facility (Photos 18 and 19). It has about 2,200 square feet of usable space.

The good features of this building are that it is located in a convenient spot and is fully plumbed. Its condition is adequate, although it is exhibiting wear from 20 years of use as a public building with lots of moisture discharged in it. The insulation quality is unknown, but is assumed to be relatively poor. Some differential settlement is evident and it does not have ADA access. The women's sauna area was damaged during a building fire on September 1 that also caused smoke damage throughout the building (Photo 20). Some smoke damage repairs were made, but the room will need additional rehabilitation to make it marketable for other uses.

The old water treatment plant will remain in operation until the new WTP is connected to this part of the community. Then the City will need to remove tankage, pumps, old water treatment equipment and cap the well, making the water treatment space (600 square feet of the total) available.

The City is currently using the washeteria side as a replacement City shop, which is probably good for at least two reasons: 1) the City needs heated shop space; and 2) until the rest of the water equipment is removed, perhaps at least two years from now, this will continue to be a building with a "utility" feel. If the City gets a credible expression of interest from a tenant willing to pay sufficient rent to make modifications worthwhile and provide cash flow to the City, it could reconsider what it does with this space.

At 1,600 square feet of usable space, the washeteria side has adequate space to be converted into small duplex units, generating perhaps $600 per month each in gross revenues, or a total of $14,400 per year. It will need approved egress windows at $3,000 per bedroom for this function. Although it has been suggested that this facility could also be used as a camp space, dormitory, airline ticketing, or coffee shop/café, each of those uses will require improvements to meet ADA and other Code requirements. The Action Plan in Section 3.0 assumes this will become residential space, but the City could decide on another use.

2.4 ATCO BUILDING

This is a prefabricated structure with dimensions of 27-feet by 45-feet (Photo 21). About 1,100 square feet of this is available. The Atco Building is currently serving as an office and dormitory facility for the construction superintendent and specialty contract help for the water and sewer project. It is fully plumbed with a bathroom, small kitchen, dining area, office, and six bedrooms. It is in a convenient location, in good condition, likely well insulated and is well-maintained. It is already set up as living quarters and could continue to function as a hotel, bed & breakfast, or construction camp.

The Atco Building does not, however, have ADA access, although a ramp to meet this requirement will be fairly modest. To meet Building Code requirements, approved egress windows at $3,000 per bedroom will need to be installed if the City leases this as living quarters.

We have assumed that this building is not available in the short term, but will become part of the City's inventory in four years and will require relatively minor costs to renovate it.

2.5 OLD CITY JAIL

This is a 20-feet by 40-feet old wood frame structure, with an "add-on" storage area with a shed roof (Photo 22). It has about 700 square feet of space available. The Old City jail is located in the "old town" area, convenient to the City offices. The City is renovating it (Photo 23), and converted it into a gaming building, to free up space in the City offices (Photo 24). This is an old structure, probably not well insulated and had a strong musty odor when we visited in late August 2007. Paint, other renovations and heat reduced that noticeably by our visit in March 2008.

We have assumed that this building will be unavailable for other uses, because of the City's plans for it. We note that in FY2004 $275,000, more than 25 percent of the City's general fund revenues, came from net gaming receipts. This is more than washeteria and sales tax revenues combined. The City clearly depends on transfer payments.

2.6 OCTAGON BUILDING

This old wood structure on pilings is one of the more architecturally interesting buildings in Hooper Bay (Photo 25). It has about 1,000 square feet of usable space, excluding an alcove and arctic entrance. However, it evidences differential settling and does not have ADA access. The Octagon Building is used for community functions, bingo and dances, and is heated only when the need arises. The City reports that it is expensive to heat. According to surveying information on design drawings for community road improvements, the building encroaches somewhat into the road right-of-way. If improvements to the building are contemplated, especially if financing is sought by a new owner or tenant, the City will need to formally vacate this portion of the road right-of-way, an easier task than moving the building.

Leveling the Octagon Building and providing a better foundation for it would be a substantial project, estimated by one contractor to cost $400,000. This number seems high, but it is likely that corrective foundation work would exceed $100,000. It is unlikely the City could secure the financing to make this large of an investment in this building.

The Octagon Building serves an important function in linking Hooper Bay to its past. However, when buildings cost more to operate than they are worth for their present function, changes are needed. City Administrator Raphael Murran suggested that this building might be demolished, but also acknowledged that the City Council had not yet expressed its opinion. We have assumed the building will continue to be used as it is now, with occasional community functions and limited investment in upkeep or heating by the City. Some community functions are important, even if the City derives little or no revenue from them.

2.7 OLD LIBRARY

This is another old wood frame structure on piling, with dimensions of 36-feet by 36-feet, 1,100 square feet of which are usable (see Photo 26). The Old Library is currently used by the YKHC as a mental health (substance abuse) counseling office. This is why it is also known as the Mental Health Counseling Building. YKHC is paying for fuel to heat it, which reportedly can be as much as “five gallons overnight.” The City derives $6,600 in annual revenues from it, and likely puts that much into janitorial and other maintenance services. The YKHC is expected to

continue leasing this building until it moves its counseling services into the new sub-regional clinic, perhaps as early as December 2008.

We have assumed the City will derive no substantial net revenues from this building after the YKHC vacates it. To make it more marketable, the building will need insulation, other remodeling, and possibly ADA access. It is not worth the investment.

2.8 CITY SHOP

This is an old, unheated wood frame structure, with approximate dimensions of 20-feet by 28-feet, set directly on poor foundation soils. It is located adjacent to the Octagon Building and Old Library in the "old town" area (Photo 27). Although it has served its purpose, it is past its useful life. The City plans to demolish it and move its functions to the old WTP. We believe this is a good idea. The City Shop is very limited in usefulness—and the City could use the land it is on for other purposes. Snow drifting in this area creates special building access and egress challenges (Photo 28).

2.9 CITY GARAGE

This structure, also known as the Harold T. Smith Memorial Building, is located along Airport Road, on the west side of the "new town" area. It is an unheated 40-feet by 60-feet wood frame structure, sheeted with plywood (Photos 29 and 30). It has about 2,300 square feet of usable space with a high clear span. This building is in a prime location for storage, a function that will continue to be useful in Hooper Bay for the next several years. However, it no longer has a door, parts of its foundation are spreading and one wall is bulging out (Photo 31). The City Garage does not appear to be in immediate danger of collapse, but if the City decides to keep it, it should do structural repairs on it. At a minimum these should include shoring the footings, bracing the structure, tying the walls together and straightening it. Additionally it should be secured to keep out children and others who do not need to be in it.

At the time of our first visit, the City Garage was being used to store construction materials for Samaritan's Purse projects. We also noted stored materials during our second visit. It appears useful for this—and for storing large equipment. We have assumed the City will derive negligible income from it, but if modest repairs are made, the City might be able to market the

City Garage for storage and generate revenues from it. Alternatively, it might continue to contribute the use of it to non-profit organizations that are investing in improvements or providing other services in Hooper Bay. If the building is demolished much of its materials appear reusable.

2.10 SUMMARY

Our observations on these nine buildings, including their advantages, disadvantages, and potential future uses, are summarized in Table 1. Additionally, we have categorized them, in descending order of economic value as:

Short-Term Promise

- New WTP and Washeteria
- Old Clinic
- Old WTP and Washeteria

Long-Term Promise

- Atco Building

Limited Market Value

- Octagon Building
- Old Library
- City Garage

Withdrawn for Other Use

- Old City Jail

Demolish

- City Shop

For the Action Plan, described in the next section, we have analyzed costs for only the buildings in the first two categories. Any net income the City might derive from the three buildings in the "Limited Market Value" category could supplement income derived from the first four buildings. However, we suggest that the City not count on this additional income.

Table 1

Summary of Available Buildings

Building	Type of Structure	Usable Space, sf	When Available?	Potential Uses	Advantages	Disadvantages
New WTP/ Washeteria (2nd floor storage room)	Prefabricated metal building, slab on grade	2,900	A portion in 2008, the rest in 2012	Storage, office lumber, building supplies, nets coffee shop/café/ food concession arts & crafts boarding rooms	New, heated, clean, dry, lighted, good height. Out of trafficked area. Reduced fire danger (because of building materials), but not sprinkled. WTP is defacto community gathering center anyway.	ADA and security access issues. No outside windows. Loads must come through cargo bay. Needed for equipment staging for W/S project. State Fire Marshal to approve change in occupancy. May affect building insurance.
Old Clinic	Wood frame on piling	1,500	Early 2009	Offices coffee shop/café/ food takeout child care arts and crafts dormitory, B&B	Convenient location. ADA access, though not great. In adequate shape, though aging--will have to compete with newer structures. Already built out for use as offices/exam rooms. Plumbed.	Old structure, probably not well insulated. Some evidence of differential settling. Steep ADA access ramp (27% grade). Building needs rehabilitation. Adjacent boardwalk sections need repair.
Old WTP/ Washeteria	Wood frame on piling	2,200	Washeteria available now; WTP available perhaps 2009	City shop coffee shop/café/ food takeout retail/beauty salon duplex, boarding	Convenient location Adequate, though 20 years old. Will have to compete with newer structures. Already plumbed.	Old wood structure; moisture released. Insulation quality may be suspect. No ADA access. Some differential settlement. Will need rehabilitation from fire damage.
Atco Building	Modular building with steel skin and insulated panels	1,100	Perhaps 2012	Hotel, B&B construction camp	Good condition, likely well insulated. Plumbed and set-up for housing. Convenient location.	No ADA access, although not tough to remodel. Not available for 4+ years.
Old City Jail	Wood frame	700	Not available for leasing	City uses for gaming	Convenient to "old town," City offices. Frees up space in City offices.	Old, probably not well insulated, needs completion of renovations.
Octagon Building	Wood frame on piling	1,000	Probably never for commercial activity	Currently used for community gatherings, bingo, dances	"Old town" location. Minimal work required to keep it functioning at basic level. Of historical significance?	Aging structure; differential settlement. Insulation quality? Expensive to heat. Encroaches into road right-of-way. City may want to demolish?
Old Library	Wood frame on piling	1,000	Mental Health leaves early 2009	Community activities	"Old town" location. Minimal work required to keep it functioning at basic level.	Aging structure with some differential settling. Insulation quality? High fuel use in winter. Probably needs remodeling.
City Shop	Wood frame	500	Demolish	None	Essentially no maintenance required.	Unheated, dilapidated, on poor foundation soils.
City Garage	Wood frame, on-grade foundation, soil floor	2,300	Now	Materials and equipment storage	Large doorway for heavy equipment. Convenient to Airport Road. Low maintenance costs.	No door to keep children out, secure contents. Foundation marginal, wall bulging, needs bracing. Unheated.

3.0 ACTION PLAN

If the City of Hooper Bay is going to generate revenue from the four priority buildings, it must take action. This section describes the constraints the City faces, an analysis of projected expenses and revenues, the assumptions behind the estimate, and specific steps the City should take next.

As mentioned earlier in this report, Hooper Bay is uniquely situated. Some of its uniqueness creates opportunity. Much of it is challenging. We have created a financial model for the City to lease the first three buildings in the short term to generate net annual supplemental income that exceeds $34,000. When the fourth property, the Atco Building, becomes available in four years, income from it will add to City funds. In this section we derive what the rates must be to make this plan work. We believe they are consistent with the local marketplace, however, to make the plan work, the City must find tenants willing to pay the required rent.

3.1 ECONOMIC DECISIONMAKING

Potential tenants will conduct a similar analysis—except they understandably consider the financial impact on themselves. Any business venture is inherently risky. An entrepreneur considering leasing from the City will want to be reasonably assured of producing sufficient revenues with costs low enough to produce a profit. Typically a business plan will need to be developed, particularly if financing is being sought. A governmental client may look at a potential lease slightly differently, but both types of renters will compare the location, condition and price for a City-owned property with the competition.

Preparing a property for lease, heating and maintaining it, and collecting rent are impacted by local conditions. The cost of power and fuel are high—this is true elsewhere in Alaska, but it is accentuated in Hooper Bay. Water and sewer utilities are available to each of the four properties. That helps. Two of the buildings are quite old—yet they must compete with available newer properties that might be better equipped.

The City's maintenance of the buildings will need to be reliable and timely—and evidence points to the fact that the City has a good history in being able to provide this. Likewise, labor for

business enterprises must be available and responsible. Although the City is not directly responsible for finding this labor, the lack of it could keep a business from starting, or succeeding once started.

The cost of transportation, particularly for parts and equipment, is substantial. Being able to market and manage a business and employees will also affect a business enterprise. Each of these factors will be considered by a potential investor.

3.2 SWOT ANALYSIS

The *Community Economic Development Strategy Plan* prepared in 2004 presented a Strengths, Weaknesses, Opportunities & Threats (SWOT) Analysis for Hooper Bay. A similar analysis will help Hooper Bay focus its strategies to succeed with this project. We have embedded some of this type of analysis throughout this report, but summarize it here.

Strengths are resources or capabilities that help accomplish a mission.

Weaknesses are deficiencies in resources or capabilities that hinder accomplishing a mission.

Opportunities are outside factors that affect decisions favorably.

Threats are outside factors that have a negative effect.

Table 2 contains a summary of our SWOT analysis, with comments on factors that we believe will affect Hooper Bay's ability to market its buildings.

Table 2

SWOT Analysis

Strengths	Weaknesses
• Rich Yup'ik tradition in arts and crafts, subsistence gathering, and interactions between youth and elders • Young, growing population • Premier birding area • Water and sewer expansion, new school, health clinic, fisheries support, roads, youth center • Investments in Internet connectivity • Experience managing capital projects, demonstrated fiscal responsibility • Good start-up record with new WTP and washeteria	• High cost of power, fuel, and transportation • Tough environmental conditions • Distance to market • Limited workforce available • Ability to pay, dependence on grants • Lack of local marketing assistance • Construction materials not readily available • Older buildings not as desirable • Inadequate solid waste disposal • Challenges with telephone and Internet connections
Opportunities	**Threats**
• Growing market and interest in Native arts and crafts • Continued and upcoming construction projects • Birdwatching and eco-tourism expansion • Growing local and regional demand for health care services • Under-utilized adjacent marine resources • Small business training, grants, and low-interest loans	• Lack of interest or unwillingness to make a commitment to take a business risk • Overzealous Code enforcement, environmental restrictions • Competition from new construction • Reduction and delays in State and federal funding • Fishing declines

3.3 FINANCIAL DATA

To develop a sustainable plan for supplemental City revenues from the four buildings, expenses must be estimated, and they must be more than offset by projected revenues. The following paragraphs describe the assumptions behind the estimates and the results from our financial analysis. More detailed supporting information is presented in Appendix D.

3.3.1 Expenses

We believe the best approach is for the City of Hooper Bay to find tenants for its properties who are willing to pay rent—and will also cover the normal costs associated with properties, including janitorial services, fuel for heating, electricity, water and sewer and telephone.

However, even if the City follows this approach, it will incur certain expenses with owning and managing properties. These include capital costs for getting properties ready for leasing—including meeting Code and ADA requirements and making other modifications to make the properties more attractive to tenants. But they also include ongoing expenses that can be expected to occur on a routine basis, plus allowances for funds that should be set aside to prepare for major repairs (like a water heater replacement) and eventual building replacement.

We addressed capital costs in Section 2.0 of this report. As we explained in that section, these costs will depend to large extent on use of the property. Some uses, like public areas (stores, restaurants, other services available to the general public) and boarding facilities require greater modifications to meet Building Code requirements and ADA guidelines. Other uses, like storage, private offices, and residences require less. For cost estimating purposes we have assumed the minimal capital improvement approach.

Ongoing expenses fall into three categories important to the upkeep of facilities—and protecting the City's interest in them. They are: 1) operations and maintenance (O&M); 2) repair and replacement (R&R); and 3) capital replacement expenses.

Operations and Maintenance

These expenses are for services and materials that occur on a regular basis to sustain the operation of a property. We have assumed the City will maintain General Liability and Property Loss insurance coverage to protect itself. The cost allowance we used for this is the same as that used in the VSW Business Plan for the new WTP and Washeteria, which is $2.40 per $1000 of valuation. It also includes an allowance for legal and accounting, and maintenance of the mechanical equipment (furnaces, water heaters, plumbing), which normally are the responsibility of a landlord. We have assumed the City will pay for the fuel oil to heat the buildings, to ensure continuity of this service, but will be reimbursed for this expense by the tenant under its lease

arrangement. Even though it may not be fully realistic, we have assumed the City will incur no additional personnel costs for managing the properties.

Repairs and Replacement

The City will also incur expenses for larger cost items that are not replaced each year. This includes a furnace, water heater and major roof repairs. The R&R portion should be deposited into a separate savings account to ensure the City will have funds available to repair or replace these items.

Capital Replacement

Capital replacement is the amount of money that should be saved each year to replace the facility at the end of its useful life. Although grant funds may be available to rebuild the facility, prudent fiscal management says the City should deposit capital replacement funds in a savings account. The amount calculated to be budgeted is based on these assumptions:

- The estimated value of each building today
- The estimated remaining life of each building
- The inflation rate is 3.5 percent
- The interest rate on the savings account is 4.0 percent
- The City will need to match 20 percent of replacement costs.

3.3.2 Revenues

The revenues the City will derive consist of two parts: rental or lease income, and fuel reimbursement. The lease or rental income is based on what can be reasonably expected in Hooper Bay. This, of course, is a limited marketplace and so finding a tenant able and willing to pay can be a challenge.

3.3.3 Net Income

Net income is calculated by subtracting from the gross revenues the expenses for operating and maintaining the facilities, including the amounts set aside for major capital repairs and building capital replacement.

All of the cost and revenue categories are summarized in Table 3. This table also shows the projected Net Income from each property. It demonstrates that the net annual income from the first three properties is $34,428, which exceeds the City's goal. However, to accomplish this, the model assumes the washeteria side of the Old WTP/Washeteria will be converted into tenancy by others, with income production. The City has already moved some of its City Shop functions into this space and may want to continue using it this way. Of course, unless it has a committed tenant who can pay, it should continue to use the space itself.

In four years, the Atco Building will come into the City's rental inventory, increasing the expected annual net income by $14,671.

Table 3

Cost Summary

Category	New WTP	Old Clinic	Old WTP	Atco Building
EXPENSES				
Capital	$8,000	$15,000	$30,000	$21,000
Operations and Maintenance	$4,820	$8,680	$6,080	$5,680
Repairs and Replacement	$1,008	$1,979	$1,156	$1,979
Capital Replacement	$3,003	$2,673	$2,673	$2,270
REVENUES				
Lease or Rent	$21,600	$18,000	$14,400	$21,600
Fuel Reimbursement	$2,500	$6,000	$4,000	$3,000
NET ANNUAL INCOME	$ 15,269	$10,668	$8,491	$14,671
Note: All expense and revenue entries are annual, except for capital costs, which are one-time.				

3.4 DISCUSSION

The *Water, Sewer & Solid Waste Business Plan* (draft) prepared by the VSW in January 2005 has a very important statement in it that is relevant to this project as well. It is worth repeating:

> *It is the expectation that the gravity of financial abilities, learned conservation practices, the diligence of management, and the participation of homeowners will interact over time to mold and further refine the financial landscape of the utility. The Business Plan will adjust accordingly.*

The City should continually monitor its costs and adjust its plans.

The City's goal for this project is to identify ways to generate at least $34,000 in new supplemental income to help offset the costs for operating the new WTP, washeteria, water distribution and sewage collection and treatment systems. This is a worthy goal. The most recent Business Plan by the VSW that we reviewed projects that the water and sewer utility will generate a "profit," even without this supplement, assuming the $85 per month per household fee can be collected, and usage of the facilities meets the projections. The first months of operation of the new WTP/Washeteria show the VSW projections may be reasonable.

At full build-out with 220 homes connected, $34,000 translates to $13 per month per household. While this savings is not insignificant, we caution the City to think also of other things that affect costs.

Although outside the scope of this Study, we note that water and sewer rates depend on a number of factors, some of which will have far more influence on rates than the City's ability to produce supplemental income from its properties. These include:

- Price of fuel
- Price of electricity
- Cost of labor to maintain and repair
- Phasing-in of new services
- Ability of the City to collect on its accounts
- Income from the washeteria, saunas, and showers
- Success of AVEC heat recovery

Good management will be essential. The City will need to run its water and sewer system as an enterprise. It will have the school, new sub-regional healthcare clinic, Sea Lion Corporation Building, stores and Coastal Villages Region Fund facilities as "anchor tenants," but will need to ensure the rest of the community also meets its financial obligations.

3.5 STRATEGIC STEPS

We have included a lot of information with this report and it will take awhile for the City to process how it wants to implement its goal. We suggest that it do so thoughtfully and carefully. From the beginning, we agreed with the City that the solutions proposed should be practical and common-sense. The only way this plan will be sustainable is for them to be so.

We suggest the following next steps:

1. Adopt the plan or some variation of it.

2. Actively seek tenants to occupy City-owned buildings as they become available. Consider advertising the availability of the properties locally and beyond. Some real estate companies offer these services on a fee or contingency basis. The City may want this or other professional help. We will be happy to support you.

3. Seek funding. From time to time grant funds may become available, particularly to make capital improvements. Any funds so acquired will help the City's cash flow. Consider low-interest loans from the Municipal Bond Bank or other sources.

4. Negotiate lease contracts that are fair to the tenant and protect the City's interests. Make capital improvements, manage the properties, collect the rents and keep track of costs.

Whatever the City decides to do, it should continue to recognize that it has tremendous assets in the community, most noticeably its people (Photo 32). The capital investments in Hooper Bay, particularly during the last three years, are also incredible. This is a wonderful opportunity for the community to help decide its future. You have our best wishes and support as you do so.

4.0 REFERENCES

Americans with Disabilities Act Guidelines for Buildings and Facilities. Developed and published by the Access Board. Available online at http://www.access-board.gov/adaag/html/adaag.htm, as updated through September 2002.

Business Plan Financial Template (080405), available from the Denali Commission website at www.denali.gov.

Hooper Bay Airport Improvements, Reconnaissance Study, 2005. Prepared by the Alaska Department of Transportation & Public Facilities, February 2005.

H*ooper Bay Community Plan.* Prepared by the City of Hooper Bay, Native Village of Hooper Bay, and Sea Lion Corporation, with assistance from RurAL CAP Planning Department and the Denali Commission, January 2006.

Hooper Bay Comprehensive Economic Development Plan. Prepared by ASCG Incorporated, July 2004.

International Building Code. Developed by the International Code Council, 2006, and adopted by the State of Alaska.

Multi-Use Facility Business Plan Guidebook. Published by the Alaska Department of Commerce, Community and Economic Development, July 2005.

Proposal for Water Treatment Space Usage Feasibility Study and Utilization Plan for Other Vacant, City-Owned Buildings, Hooper Bay, Alaska. Prepared for the City of Hooper Bay by Michael L. Foster & Associates, Inc., May 22, 2007.

WTP/Washeteria Business Plan. Prepared for the City of Hooper Bay and made available in Excel format by Roger Burleigh, P.E., VSW Project Manager, September 7, 2007.

Water, Sewer & Solid Waste Business Plan (draft). Prepared for the City of Hooper Bay by the Alaska Department of Environmental Conservation, Village Safe Water Program, January 2005.

PHOTOS

Photo 1: Children at Hooper Bay School learn about Alaska's history and its constitution from former Lieutenant Governor Loren Leman.

Photo 2: Long daylight hours in the summer give opportunity for children to play outside.

Photo 3: Many new houses have been constructed during the past decade.

Photo 4: The YKHC provides the primary health care services at an aging clinic building.

Photo 5: Construction on YKHC's new sub-regional health clinic started in August 2007.

Photo 6: By March 2008 considerable progress had been made on the new clinic.

Photo 7: Hooper Bay appreciates its new 74,000-square feet school, constructed for $26 million.

Photo 8: A new youth center and adjoining Covenant Church, constructed with help from Samaritan's Purse, serves the community, especially its young people.

Photo 9: The community is happy with its new church and youth center.

Photo 10: The new youth center serves hamburgers, hotdogs, popcorn, ice cream, milk shakes and other beverages.

Photo 11: The new water treatment plant, washeteria, showers, and saunas opened in September 2007.

Photo 12: Treated water is stored in a 420,000-gallon tank for community use.

Photo 13: The second floor storage room in the WTP is well-equipped.

Photo 14: Materials were selected to reduce fire danger in the WTP.

Photo 15: A ramp for wheelchair access to reach the second floor of the WTP would be more than 140-feet long.

Photo 16: The Old Clinic building has served Hooper Bay well, but is past its useful life as a clinic.

Photo 17: This steep ramp at the Old Clinic will need to be modified to meet ADA guidelines.

Photo 18: The old washeteria functioned for 20 years.

Photo 19: The Old WTP serves several buildings in the “new town” area and provides treated water for users to haul to their homes.

Photo 20: Fire in September 2007 damaged the women’s sauna in the old washeteria.

Photo 21: The Atco Building adjacent to the Old WTP is used by staff for the water and sewer project.

Photo 22: The Old City Jail has been refurbished to be used for gaming.

Photo 23: A local painter helps convert the Old City Jail into space for gaming.

Photo 24: Gaming provides a substantial part of the City's revenue.

Photo 25: The Octagon Building is used for community functions.

Photo 26: The Old Library is used by the YKHC for mental health counseling.

Photo 27: The City Shop will be demolished and its functions moved elsewhere.

Photo 28: Snow drifting can be quite sudden and creates special challenges for entering and exiting buildings.

Photo 29: The City Garage is unheated and does not have a door. It is used to store materials.

Photo 30: The City Garage is used even in the winter.

Photo 31: The west wall on the City Garage is bulging and should be repaired.

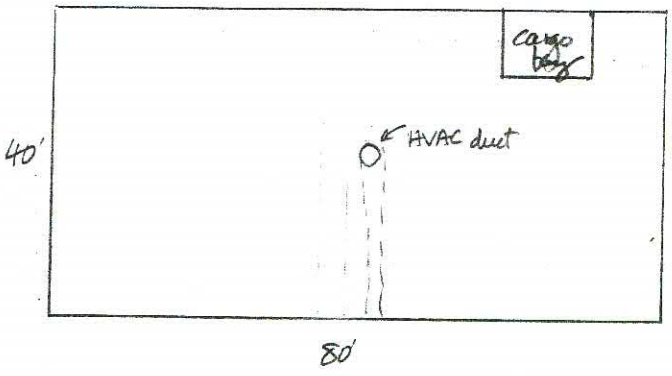
Photo 32: Young children are a reminder of the tremendous resources and opportunity in Hooper Bay.

APPENDIX A

FIELD NOTES

① New WTP - 2nd floor storage room

metal building on concrete slab (or grade)



Gross area ~ 80 x 40 = 3200 ft²
less unusable area -
cargo bay behind doors ~200 ft²
mechanical ducts in center of room ~100 ft²

usable space 2,900 ft²

+

good height
clean, dry, heated, lighted
out of trafficked area
new
metal construction/insulation (reduced fire danger)
will have washateria, shower/sauna traffic anyway - so will become a de facto community gathering center

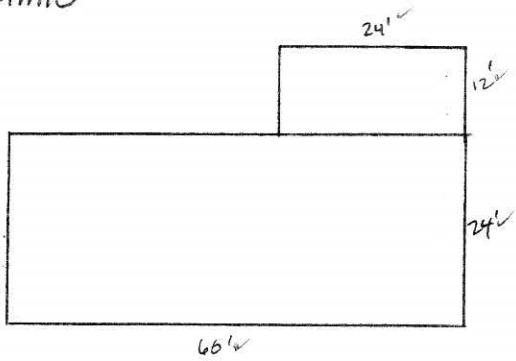
=

on 2nd floor
only accessible by stairs (ADA)
must go through WTP to access (security)
must load through cargo bay
needed for equipment staging for W,S expansion project & perhaps for next 4 yrs+
no outside windows
will Fire Marshal approve Δ in occupancy?
how will Δ affect insurance on this bldg?
- ck to see who is covering (AML?)

possibilities

lumber, building supplies, nets
small engine repair - (competition = CVRF building)
office space (perhaps State, fed gov't?)
dorm rooms
storage
food concessions (take out?) - comp. = youth center?

② Old Clinic



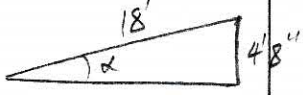
wood frame structure on piling

built - est early 70s - maybe 35 yrs old

Gross area = 60×24 + 12×24 = 1728 ft²

less walls, partitions, entryway say -228

usable space est 1500 ft²



$\sin\alpha = \frac{4.67}{18} = 0.26$

$\alpha = 15^\circ$

≈ 27% slope

Plus

Good, convenient location
has ADA access
Adequate
Plumbed

Minus

old, wood structure
prob. not well insulated

some deformities in structure
fairly steep ramp (15°) - prob only assisted users
probably will need rehabilitation of bldg
some adjacent boardwalk sections need repair

Exst rooms

kitchen
janitor closet - w/ shower & tub
attendant area
office
office / medicine / equip storage
bathroom
4 exam rooms
dental room/closet
Emergency room

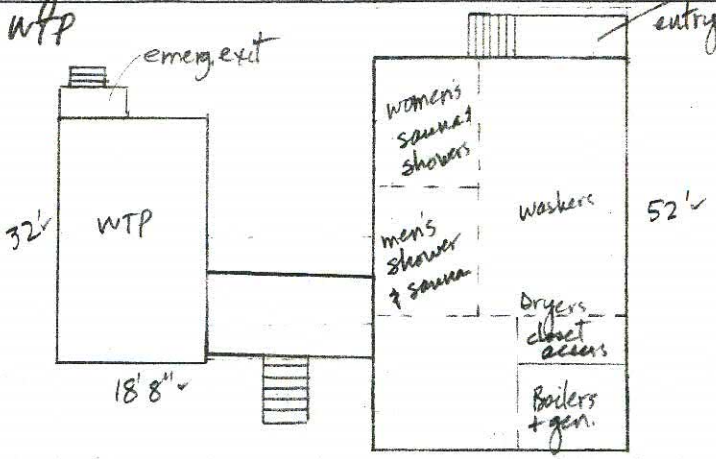
possibilities

Coffee shop / cafe / food take out (competition w/ Youth Center)
DHSS offices?
other govt?
Child care

Dormitory, B&B
Cooperative arts & crafts - Comp. = City Youth & Elder bldg

uses 70 gal fuel/week during coldest times (according to Marc Cowart, HPB)

③ Old WTP



Wood frame structure on piling ~ 20 yrs old

two bldgs linked by walkway

Gross area = 32' × 18'8" + 34' × 52' + 22' × 10' = 2585 ft²

Less walls, walkway, pipe chase, well - 385

~2200 ft² of usable space

Plus

Good convenient location
Adequate plumbed

Minus

Old wood structure
Lots of moisture released in bldg
Insulation quality ?
NO ADA access
Some differential settlement
Will need rehab.

When new WTP is online & connected to this bldg, will need to remove tankage, pumps, old W.T. equipment, cap well

the washers, dryers are slated to be removed soon - because the new washeteria will be starting up soon after the Grand Opening on Sept. 10

This building is probably a good choice for a replacement City shop - esp the WTP side.

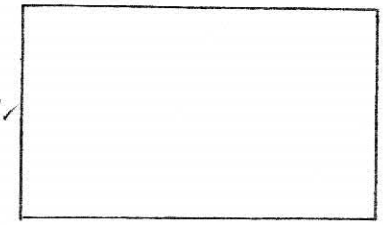
The washeteria area could be converted to dorm/construction camp space, coffee shop/cafe (Comp = youth center), possibly apartment - might be able to make two units out of larger structure

potential rent → 2 × $500/mo = $1000 mo to City ⇒ $12K/yr

↓ plus utilities

what is available for low-income rent?

(4) Atco Building 4N



Atco prefabricated structure

well maintained, clean

piped w/s, bathroom
small kitchen
dining area, office, 5 bedrooms

Gross = 27×45 = 1215 ft²
Available ≅ 1100 ft²

When available, this would be one of the nicer facilities in Hooper Bay

it is already set up as a living quarters — & could function as a hotel, B&B, constr. camp for construction supt & specialty contract help

prob not available for at least 4 more yrs

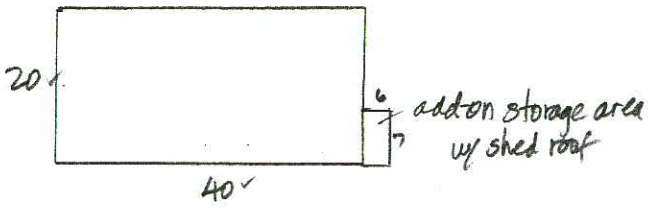
Plus

Good condition
Good, convenient location
Likely well insulated

Minus

No ADA access
Not available for ~4 yrs

(5) Old City Jail



Old wood frame structure

Gross area = 842
less walls -142

say 700 available

Convenient to City offices

City plans to renovate, convert into gaming building

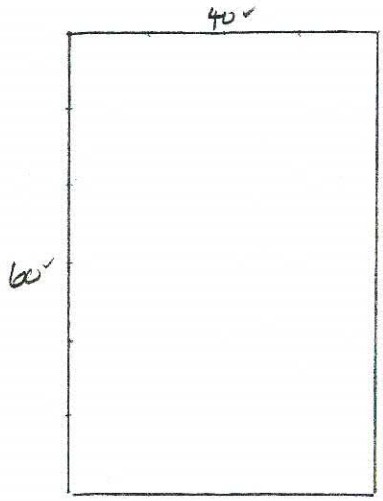
Plus

location - convenient to old town
will free-up space in City offices

Minus

Old
Musty
prob not well insulated
needs renovations

(6) City Garage (Harold T. Smith Memorial Bldg)



unheated wood frame structure

foundation is spreading - one wall is bulging out

large door is missing

2400 ft² of gross area

~ 2300 ft² of usable space

City doesn't know what it will do w/ this

Currently it is being used to store construction matls for Semantani Purse projects - prob OK for this, or large equipment

Not in immediate danger of collapse - but should brace, tie walls together, straighten - & put security barrier on it - to keep children, others out of it - keep an eye on it & do structural analysis on reg. basis

(7) Octagon Building

I didn't measure - could get footprint from CE2 transportation dwgs in field - later used aerial photo to estimate dimensions.
Old wood frame structures (two) encroaches somewhat into road R/W
Differential settlement

used for community functions, dances

plan: No change?
per Raphael Murran on 9/6/07 - "I'd like to tear/burn down" - but don't know what the Council will want to do

from aerial photo, bldg is approx 52' in "diameter" - plus a "porch"
est floor space (gross) = 1800 ft²
perhaps usable space = 80% of this → 1400 ft²

(8) City Shop

old wood frame structure
unheated
on poor foundation soils

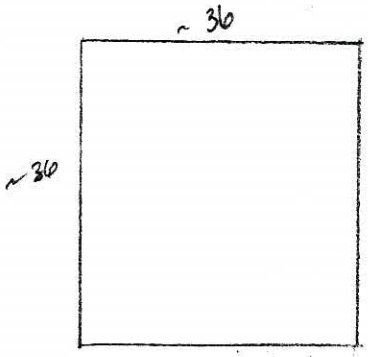
City plans to demolish this structure - & move its functions to the old WTP

this is prob a good idea - it is very limited in usefulness
I didn't measure in field - but from aerial photo, it looks like
~ 28' x 20' = 560 ft² gross - perhaps 500 ft² usable

(9) Old Library/Mental Health Counseling Bldg

old wood frame structure

currently used by YKHC as a mental health (substance abuse) counseling office



(dimensions est. from aerial photos & pictures in field)

City plans to continue using it until this function moves to new subregional clinic
- then it is available
prob. needs insulation, other remodeling - high fuel use

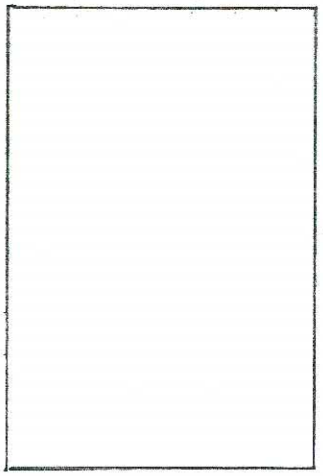
gross area = 36 × 36 = 1300 ft²
est usable = 1100 ft²

(10) Old Headstart Bldg -

currently used as the Public Safety Bldg / City jail

I didn't measure or inspect this one in the field - as City didn't indicate it would be available - dimensions estimated from aerial photo

for now, assume its use doesn't change



old wood frame structure

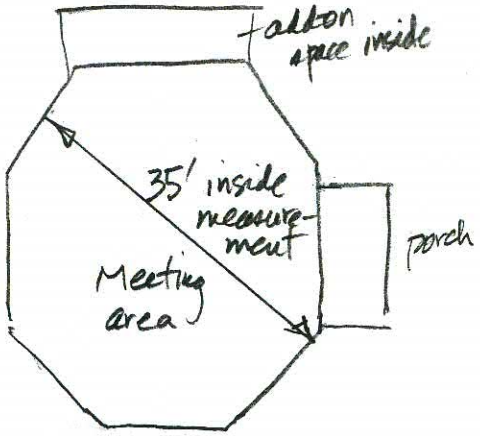
gross area = 2400 ft²
est usable = 2000 ft²

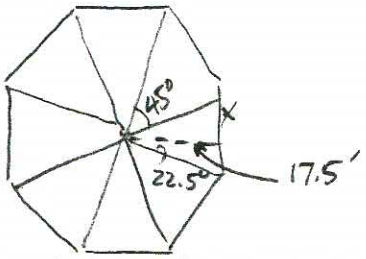
Roadway

Additional information from site visit on March 20, 2008:

Octagon Building

Marc Cowart unlocked & provided access





$x = 17.5 \tan 22.5^\circ = 7.25'$

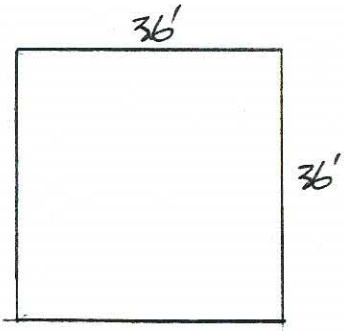
$\text{Area (octagon)} = 8\left(\frac{1}{2}\right)(14.5)(17.5)$

$= 1015\ ft^2$

Say 1000 ft^2 usable

Uneven floor inside (for sitting) - used for bingo
Evidence of differential settling - Marc says one contractor estimated the cost to level & place a good foundation under it at $400K! (Seems high!) - the bldg is very stout - strong, heavy timber construction
Heat is turned on when the bldg is to be used - otherwise it is left cold.

Old Library



I measured the outside of the building - & confirmed my previous estimate of bldg dimensions from an aerial photograph

This building was leveled (recently?) - & looked pretty good.

The City leases it to YKHC for mental health counseling (substance abuse) for no charge.

YKHC is responsible for O&M
This use will likely discontinue when the new sub-regional clinic is completed.

APPENDIX B

CORRESPONDENCE

Loren D. Leman

From: City of Hooper Bay [cityhpb@yahoo.com]
Sent: Thursday, April 10, 2008 3:13 PM
To: Loren D. Leman
Subject: Space Utilization Study

Loren,
The old wtp can be converted to a place where hot dogs, home-made pizzas, grilled halibut,locally caught, grilled fresh salmon, shrimp salads, grilled hamburgers and other food take-outs can be ordered by telephone. There is enough space for tables for transients and locals. The fire damaged the interior and burned some outside sheets. It needs reconstruction and rewiring of the burned area. The layout of the space, the ordering of cooking equipments, and other equipments can be made with the an outside, experienced consultant in this type of business.
The Council wants the other space as a place where the people work on snomachines, outboard motors and ATVS for a fee.
The Council wants the ATCO building as a Bed & Breakfast center including the old clinic. The food take-out can complement the Bed & Breakfast area.

As for the space at the new WTP, since it is still used as a storage space by the project, and since it has no local market for office space, we need to solicit out side businesses for its space taking into mind need of lumber, good hardwares, and other village needs.
RJMurran

Loren D. Leman

From: Davis, Janet E (CED) [janet.davis@alaska.gov]
Sent: Wednesday, April 09, 2008 2:15 PM
To: Loren D. Leman
Cc: cityhpb@yahoo.com
Subject: RE: Hooper Bay Space Utilization Report

Loren,

After reviewing the draft report for Hooper Bay I must say it appears to be very well researched and the presentation of the information is very polished. The maps and photos are of very good quality and the tables are nice for a "quick picture" of the challenges and possibilities. The City of Hooper Bay requested and was granted an extension through May 31, 2008. It looks like you are right on track and we should be able to close this project out by that time.

Thank you,

Janet Davis
DCCED
Division of Community & Regional Affairs
211 Cushman Street
Fairbanks, Alaska 99701
Phone: (907) 451-2746
Fax: (907) 451-2742
janet.davis@alaska.gov
Website: http://www.commerce.state.ak.us/dca

From: Loren D. Leman [mailto:ldl@mlfaalaska.com]
Sent: Wednesday, April 09, 2008 12:30 PM
To: Davis, Janet E (CED)
Cc: Davis, Janet E (CED); cityhpb@yahoo.com
Subject: Hooper Bay Space Utilization Report

Janet,
On January 11, 2008, on behalf of the City of Hooper Bay, we sent you two copies of our draft report for the Space Utilization Study for Hooper Bay, funded through a mini-grant administered by your Department. We asked that you review the report and offer review comments, if you had any.

We haven't heard from you, but subsequently met with the City and its Council in Hooper Bay on March 20 to present the draft report—and solicit their input. We expect to get their final review comments within the next day or two and would like to prepare the final report to complete our work under our contract.

If you have any input to provide, now would be the time to do it. If at all possible, we'd like to hear from you this week.

Best wishes,

Loren Leman
Michael L. Foster & Associates
696-6209

STATE OF ALASKA

DEPT. OF HEALTH AND SOCIAL SERVICES

OFFICE OF THE COMMISSIONER

SARAH PALIN, GOVERNOR

P.O. BOX 110601
JUNEAU, ALASKA 99811-0601
PHONE: (907) 465-3030
FAX: (907) 465-3068

January 10, 2008

Loren Leman, Vice President
Michael L. Foster & Associates, Inc
13135 Old Glenn Highway, Suite 200
Eagle River, AK 99577

Dear Mr. Leman: Loren –

Thank you for your consideration of the potential need that the State of Alaska, Department of Health and Social Services (DHSS) may have for leased space in the community of Hooper Bay. After speaking with you, I asked several individuals within the Department to evaluate any need that the Department may have for leased space in Hooper Bay. Based on their research DHSS does not currently need leased space in Hooper Bay. However, DHSS procurement staff have forwarded your letter to the Department of Administration, for consideration of leased space needs for other departments.

Thank you, for your inquiry and your consideration of our potential need for space in Hooper Bay

Sincerely,

Karleen K. Jackson, Ph.D.
Commissioner

Loren D. Leman

From: Loren D. Leman
Sent: Monday, October 22, 2007 1:55 PM
To: 'Raphael Murran (cityhpb@yahoo.com)'
Subject: FW: Space Utilization in Hooper Bay
Attachments: Building Summary 9.06.07.doc

Raphael,
I had a good conversation with Brent Petrie (AVEC) earlier today. He thinks they might have some interest in facilities for housing construction crew that may come from outside Hooper Bay. One of the challenges, however, is that they are now planning for construction in 2008, which will likely be too early for your clinic property, maybe even too early for your old WTP. This is, however, worth thinking about.

Loren Leman, P.E.
Michael L. Foster & Associates
696-6209

From: Loren D. Leman
Sent: Monday, October 22, 2007 1:52 PM
To: 'Brent Petrie'
Subject: Space Utilization in Hooper Bay

Hi Brent,
As I mentioned during our telephone conversation earlier today, we have been hired by the City of Hooper Bay to study utilizing several City-owned properties. The City wants to use space that either is or will soon become available for productive economic activities consistent with the community's values, vision and goals expressed in its comprehensive plan. It is particularly interested in partnerships with tenants and other "common sense" solutions that benefit it and its residents.

AVEC plans to modify its provision of power generation in Hooper Bay by adding wind generation and providing controls for its diesel and wind-driven generators. You also are working on heat recovery and its use to heat the City's new water distribution and sewage collection system. We believe some of the City's properties might interest you or your contractors.

The City has recently opened its new water treatment plant/washeteria (WTP), and continues to work on projects to provide water distribution and sewage collection to additional parts of Hooper Bay. Although these improvements are being provided largely through outside grant funds, local utility and washeteria users will be responsible for their operation and maintenance. It is in the City's interest to keep rates as low as possible. Accordingly, the City has proposed supplementing its water & sewer utility user income with rental income from selected properties the City owns.

Hooper Bay asked us to look at nine of its properties (see attached draft of a recent "condition" survey). Three of these may have potential application for you:

- The "old" clinic
- The "old" water treatment plant/washeteria
- A second floor storage area in the new WTP

The existing "old" health care clinic is a wood frame building on piling, with about 1,500 square feet of usable space. It is currently leased by the City to the Yukon-Kuskokwim Health Corporation (YKHC). This building will likely become "excess to need" for YKHC when the new sub-regional health clinic is completed, expected in early 2009. It would then be available to be used for a dormitory, offices, retail, day care, storage, or other

functions.

The "old" water treatment plant/washeteria, with 2,200 square feet of usable space, is located near the old clinic. Although some of the building will continue to be used until new water and sewer services reach this area, it will also become available for other uses, perhaps in 2009. The washeteria side is available now, but part of it may be converted into a City shop.

The new WTP has 2,900 square feet of new space on the second floor that is currently being used for construction logistics and storage. A portion of this room might be available for other uses consistent with the mission of this building, perhaps as early as 2008. Although this is new, very nice space, the second floor does not have ADA access, and is not currently rated for restaurant or hotel occupancies. Other uses may be limited to "non-public" activities or the building would have to undergo substantial and expensive modifications.

We want you to be aware of these opportunities as you plan for your space needs. We are willing to talk with you about availability and condition of any of these properties.

Loren Leman, P.E.
Michael L. Foster & Associates
696-6209

Michael L. Foster & Associates, Inc.
An Alaskan Owned and Operated Company
Architects • Engineers • Planners • Scientists
Surveyors • General Contracting

October 12, 2007

Karleen Jackson, Commissioner
Department of Health & Social Services
PO Box 110601
Juneau, AK 99811-0601

Hooper Bay Building Space Utilization
HOOP-HOOP-001-0001

Dear Commissioner Jackson:

During our brief conversation in Anchorage on Sunday, October 7, I mentioned that we have been hired by the City of Hooper Bay to study utilizing City-owned properties. The City wants to use space that either is or will soon become available for productive economic activities consistent with the community's values, vision and goals expressed in its comprehensive plan. It is particularly interested in partnerships with tenants and other "common sense" solutions that benefit it and its residents.

I know of your personal interest in assisting Hooper Bay in its recovery from its disastrous fire in August 2006 and of your department's continued investment in providing services to the community. So, I thought I would share this need/opportunity with you. You might be aware of a potential application for DHSS, or perhaps you know of others who might be interested.

The City has recently opened its new water treatment plant/washeteria (WTP), and continues to work on projects to provide water distribution and sewage collection to additional parts of Hooper Bay. Although these improvements are being provided largely through outside grant funds, local utility and washeteria users will be responsible for their operation and maintenance. It is in the City's interest to keep rates as low as possible. Accordingly, the City has proposed supplementing its water & sewer utility user income with rental income from selected properties the City owns.

Hooper Bay asked us to look at nine of its properties. Three of these may have potential application for your department:

- The "old" clinic
- The "old" water treatment plant/washeteria
- A second floor storage area in the new WTP

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Architects • Engineers • Planners • Scientists
Surveyors • General Contracting

The existing "old" health care clinic is a wood frame building on piling, with about 1,500 square feet of usable space. It is currently leased by the City to the Yukon-Kuskokwim Health Corporation (YKHC). This building will likely become "excess to need" for YKHC when the new sub-regional health clinic is completed, expected in early 2009. It would then be available to be used for offices, retail, day care, storage, or other functions.

The "old" water treatment plant/washeteria, with 2,200 square feet of usable space, is located near the old clinic. Although it will continue to be used until new water and sewer services reach this area, it will also become available for other uses, perhaps in 2009. The washeteria side is available now, but is likely going to be converted into a City shop.

The new WTP has 2,900 square feet of new space on the second floor that is currently being used for construction logistics and storage. A portion of this room might be available for other uses consistent with the mission of this building, perhaps as early as 2008. Although this is new, very nice space, the second floor does not have ADA access, and so other uses may be limited to "non-public" activities or the building would have to undergo substantial and expensive modifications.

I know the State of Alaska has procedures it must follow for leasing or purchasing building space, and your department may not be looking right now to house additional services in Hooper Bay. On the other hand, we want you to be aware of this opportunity as you plan for your space needs. Or, perhaps you can help the City of Hooper Bay by connecting it with other potential tenants in the health or social service sectors. I hope to hear from you soon.

I always enjoy seeing you—and Sunday was no exception. Thank you for the work you are doing in leading the Department of Health & Social Services. I know you have huge challenges and are up to the task.

Sincerely,

MICHAEL L. FOSTER & ASSOCIATES, INC.

Loren Leman, P.E.
Vice President

Copy: Raphael Murran, City of Hooper Bay

Loren D. Leman

From: Loren D. Leman
Sent: Thursday, September 13, 2007 3:02 PM
To: 'Paul Varady'
Cc: 'Raphael Murran (cityhpb@yahoo.com)'
Subject: Hooper Bay Space Utilization

Hi Paul,
Our brief meeting last evening at the Alaska Club was fortuitous. I had intended to get back with you soon anyway. As I mentioned, we were selected to work on the study of City-owned space in Hooper Bay—and help the City with recommendations on how to use it, including possibly marketing it to rent-paying tenants. The City is particularly interested in using income that may be derived from this leasing to help defray costs of operating its new water & sewer system. It wants to keep water and sewer rates as affordable as possible, and they believe an external cash flow supplement to their Water & Sewer Fund could be beneficial.

I know CVRF has just recently completed a Fisheries Support Center in Hooper Bay. I saw this from the outside—it looked very nice. You also have a small adjacent plant for processing seafood. We'd like to know if you might be interested in any of the City-owned properties expected to become available starting about a year from now. I have attached a draft list of the properties the City has identified as "meriting investigation."

Please take a look at this list and let me know your level of interest in any of them. If you do not have a need for any of these, you might know of an entity that could be interested. Perhaps you or some local members of your association could identify other uses that might benefit the City (from economic rents) and the community as a whole (from increased economic activity).

If you want to talk in person, I can arrange that.

Loren Leman, P.E.
Michael L. Foster & Associates
696-6209

Loren D. Leman

From: Loren D. Leman
Sent: Tuesday, September 04, 2007 10:18 AM
To: 'William Naneng'
Cc: boscoolson@yahoo.com; 'Raphael Murran (cityhpb@yahoo.com)'
Subject: Space Utilization Study

Hi William,
Thank you for sharing your thoughts about the economic viability of using some of the buildings the City of Hooper Bay now owns. You are correct—some of the structures clearly have limited usefulness. The City should not be investing a lot of money into them. On the other hand, the old clinic and old water treatment plant/washeteria appear to have substantial value. Of course, this will depend on the City's ability to attract paying tenants—and how much it costs to renovate and maintain the structures.

The new WTP/washeteria also clearly has value that the City will realize soon. For the near future the ongoing project for the expansion of the water and sewer systems will need at least some of the space on the second floor of this building for storage and material staging. This will limit the City's ability to use this space for other purposes. We don't yet know how or when conflicts for using this space will be worked out—but will be discussing them with the City as we continue working on the space utilization study.

Marc Cowart and I looked at eight structures the City now owns (or will do so soon), and talked about how some of these may be used to provide cash flow for the City that might be available to help cover some of the projected increased costs for operating the improved and expanded water and sewer systems. We are going to discuss these structures in our draft report and you will have an opportunity to provide additional comment about how or if you see the Sea Lion Corporation being a part of using any of these facilities, or, of course, any other observations you may have as a longtime resident of Hooper Bay.

I appreciate the time you spent with us last Wednesday morning to talk about your vision for Hooper Bay as expressed in a recent community planning document, and how the Sea Lion Corporation is playing a part in that vision. You and the Sea Lion Corporation are an important part of the space utilization study that we are now doing for the City.

Let's stay in touch.

Loren Leman, P.E.
696-6209

From: William Naneng [mailto:will@sealioncorp.net]
Sent: Wednesday, August 29, 2007 2:19 PM
To: Loren D. Leman
Cc: boscoolson@yahoo.com
Subject: Water Treatment Space Usage Study

The study will find that financing will be needed to achieve what city of Hooper Bay wants to undertake; financing could be in the form of reappropriating funds being used now on structures that are presently do not even meet public building standards, consolidating uses of, narrow down which funding opportunities that could be applied for and or find a body that has their own funding. What city needs to realize is that any substandard buildings it has in use and whether we find uses for empty building or not is costing the public monies/ or an opportunity if they did not exist. If we could narrow down on which buildings are more likely to be used and which buildings that the community could function without we would have gone a long way.

APPENDIX C

COMMUNITY & PROJECT RESOURCES

CONTACTS

LOCAL

City of Hooper Bay
PO Box 29
Hooper Bay, AK 99604
Joseph Bell, Mayor (2008)
Gabriel Seton, Jr., Mayor (2007)
Raphael Murran, Administrator
Aldine Simon, Clerk

Phone: 758-4311
Fax: 758-4761
E-Mail: cityhpb@yahoo.com

Native Village of Hooper Bay
PO Box 36
Hooper Bay, AK 99604
Bosco Olson, President
Elmer Simon, Administrator

Phone: 758-4915
Fax: 758-4066
E-mail: boscoolson@yahoo.com

Native Village of Paimiut
PO Box 230
Hooper Bay, AK 99604
Agatha Napoleon

Phone: 758-4002
E-mail: aqnapoleon@hotmail.com

Sea Lion Corporation
PO Box 87
Hooper Bay, AK 99604
William Naneng, General Manager

Phone: 758-4015
Fax: 758-4815
E-mail: will@sealioncorp.net

REGIONAL

AVCP Regional Housing Authority
PO Box 767
Bethel, AK 99559
Ron Hoffman, CEO

Phone: 543-3121
Fax: 543-4020
E-mail: ron@avcphousing.org

Alaska Village Electric Cooperative, Inc
4831 Eagle St
Anchorage, AK 99503-7497
Brent Petrie, Manager, Community Development and Key Accounts

Phone: 565-5358
Fax: 561-2388
E-mail: bpetrie@avec.org

Calista Corporation
301 Calista Court, Suite A
Anchorage, AK 99518-3028
Matthew Nicolai, President

Phone: 279-5516
Fax: 272-5060
E-mail: calista@calistacorp.com

Coastal Villages Region Fund
711 H St, Suite 200
Anchorage, AK 99501
Paul Varady
Phone: 278-5151
Fax: 278-5150
E-mail: paul_v@coastalvillages.org

Lower Yukon School District
PO Box 32089
Mountain Village, AK 99632-0089
John LaMont, Superintendent
Phone: 591-2411
Fax: 591-2449
E-mail: jlamont@do.lysd.k12.ak.us

Yukon Kuskokwim Health Corporation
PO Box 529
Bethel, AK 99559
Gene Peltola, President and CEO
Phone: 543-6020
E-mail: gene_peltola@ykhc.org

OTHER

Don Fancher
Y-K Delta Area Planner
Dept. of Transportation & Public Facilities
PO Box 196900
Anchorage, AK 99519-6900
Phone: 269-0516
Email: donald.fancher@alaska.gov

Garry Bowley
W/S Project Superintendent
CE2 Engineers, Inc.
PO Box 269
Hooper Bay, AK 99604
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Fax: 758-4379
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Division of Community & Regional Affairs
Dept. of Commerce, Community &
Economic Development
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Karleen Jackson, Ph.D, Commissioner
Dept. of Health & Social Services
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Phone: 465-3030
Fax: 465-3068
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Paul Weisner, P.E.
W/S Project Manager
CE2 Engineers, Inc.
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Anchorage, AK 99523-2946
Phone: 349-1010
Fax: 349-1015
E-mail: info@ce2engineers.com

Roger Burleigh, P.E.
Village Safe Water
555 Cordova St, 4th Fl
Anchorage, AK 99501
Phone: 269-7606
Fax: 269-7509
E-mail: roger.burleigh@alaska.gov

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Surveyors • General Contracting

MEMORANDUM

TO: Raphael Murran, Administrator
City of Hooper Bay
FROM: Loren Leman, P.E.
RE: Space Utilization Study Review
Project No. HOOP-HOOP-001-0001
DATE: April 24, 2008

This memorandum documents the review comments from you, other City staff, Council and members of the public during my second site visit to Hooper Bay on March 20-21, 2008.

On Thursday afternoon, March 20, I met at City Hall with you and Marc Cowart, Operations Supervisor, to discuss the draft report for our *Space Utilization Study* and the anticipated agenda for the review meeting scheduled for 7 p.m. that day. You had changed the meeting location from the Sea Lion Corporation Building to the washeteria room in the new Water Treatment Plant.

You and Marc commented that you considered our work thorough and accurate. We discussed implementation of the Action Plan, the challenges Hooper Bay faces, and your desire to have more services available in Hooper Bay. Marc then accompanied me to look at the Octagon Building and the Old Library. We went inside only the Octagon Building.

The review session with the Council and other members of the public started at 7:20 p.m., a little latter than planned. Although I had previously met many of the people who attended the meeting, I reintroduced myself, our firm and the purpose for the study—and the goals of the review meeting. I distributed a sign-in sheet and other handouts, primarily information derived from the draft report. The completed sign-in sheet accompanies this memorandum. I also told the attendees they could offer comments at the meeting—and also provide written comments later, by mail, fax or email.

The purpose of the study is to identify productive economic activities to:

1. Offset water and sewer fees (goal of +$34,000 per year)
2. Provide services Hooper Bay needs
3. Provide local employment and business opportunities.

To assist in understanding the study process and results, I distributed Table 1, the Summary of Available Buildings, showing space, conditions and other constraints for nine City buildings. I also distributed Table 4, the Cost Summary. I identified that the

13135 Old Glenn Highway, Suite 210 • Eagle River, AK 99577 • 907-696-6200 • Fax 907-696-6202

City's goal of $34,000 in supplemental income represents a monthly charge of $13 per home at full build-out, not an inconsequential amount. Throughout the project, we have wanted to keep the solutions offered practical and common sense and provide benefit to city residents, if possible.

Following my presentation, we discussed a number of issues in a broad-ranging question and answer session. Some attendees said they would like to see more services available in Hooper Bay, including café/food takeout, building and fishing supplies, a beauty salon, and housing for construction and other transient workers. They suggested that the City might do a community poll to see what others are thinking. I told them about the economic risks any investor would have to evaluate before starting a business enterprise. You suggested that if private investors are unwilling to take the risk and provide the service, the City might need to step in to provide it. I talked about the pluses and minuses of the City doing this.

In closing I reminded the City of the steps needed to finish this project and move ahead with implementation:

1. Provide comments to us
2. We produce a final report
3. The City Council adopts a plan
4. The City actively seeks tenants for vacant space
5. The City pursues grant or loan funds
6. The City identifies tenants and negotiates lease agreements.

The review meeting wrapped up by 9:20 p.m. Informal conversations continued after that.

Following the meeting we received email input from you. This is included in the report in Appendix B, Correspondence. None of the others present at the meeting responded in writing.

Hooper Bay Space Utilization Study

Review Meeting
March 20, 2008 at 7:00 pm
~~Sea Lion Corporation Conference Room~~ WTP/Washeteria
Hooper Bay, Alaska

Name	Address	Phone	Email
Mildred R. Metcalf	PO Box 207 Hooper Bay AK 99604	758-4006 WK	
Joseph Bell	P.O. 185 Hooper Bay 99604	758-4266	
Scott Ballard	PO Box 251 Hooper Bay 99604	758-1200 WK 758-4772	sballard@kuskokwim.org
mARC COWART	P.O Box 257 Hooper Bay 99604	758-4311	cityhpb@yahoo.com
Bernard Murran	P.O. Box 274, Hooper Bay, AK 99604	758-4122	bdmurran@yahoo.com
Gabriel J Seton Sr	PO Box 236 Hooper Bay, AK 99604	758-4072	
Reuben C. Hill	Box 210 Hooper Bay AK 99604	758-4096	
RJ Murran	Box 188 Hooper Bay 99604	758-4310 WK	cityhpb@yahoo.com
Paul Hildebrand	P.O. Box 153 Hooper Bay	758 4152	
Loren Leman	13135 Old Glenn Hwy #200, Eagle River AK 99577	696-6200	ldl@mlfaalaska.com
Aldine Simon	Clerk, City of Hooper Bay	758-4310	

COVER PHOTO: A massive fire in 2006 devastated Hooper Bay, one of the largest Eskimo villages in Alaska. Samaritan's Purse responded by rebuilding homes and constructing a new church and youth center. We organized evangelistic activities where over 100 of the village's 600 children made decisions for Christ. Though the sun barely rises during the long Alaskan winters, the Light of the Gospel shines forth.

SAMARITAN'S PURSE
International Headquarters
P.O. Box 3000 · Boone, NC 28607 USA
www. samaritanspurse.org

Offices in
AUSTRALIA · CANADA · GERMANY · IRELAND · NETHERLANDS · UNITED KINGDOM

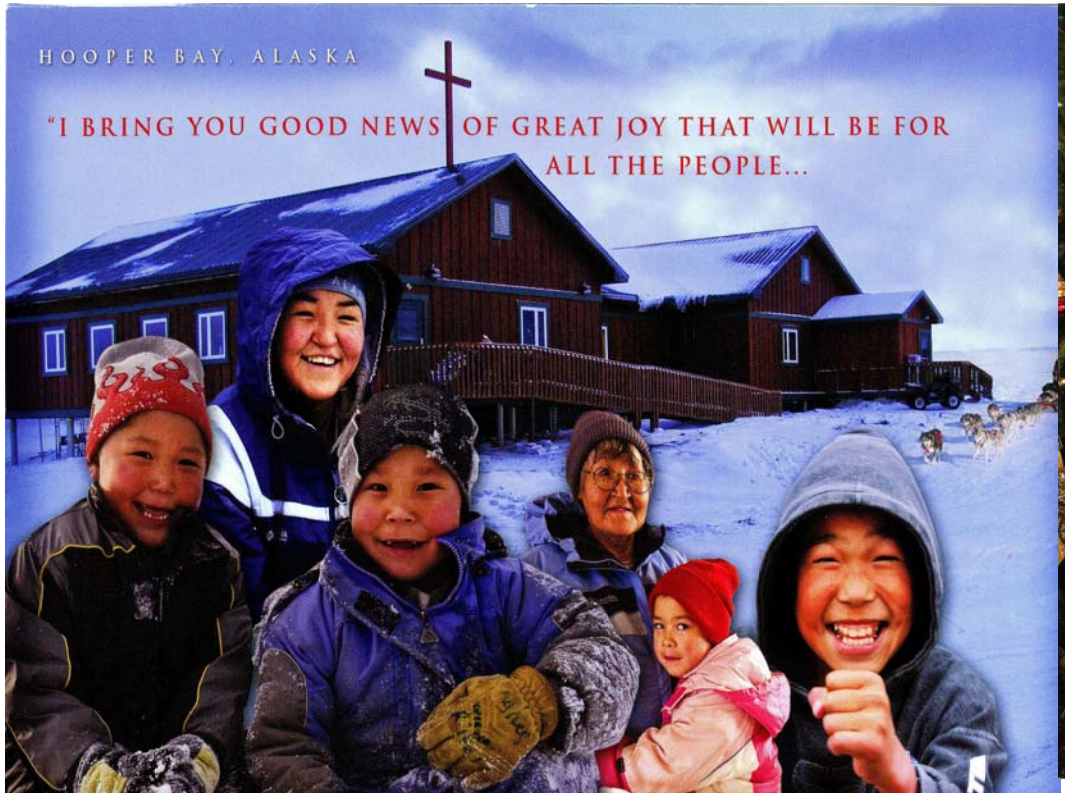
Please pray for the ministry of Samaritan's Purse.

...TODAY IN THE TOWN OF DAVID A SAVIOR HAS BEEN BORN TO YOU; HE IS CHRIST THE LORD."

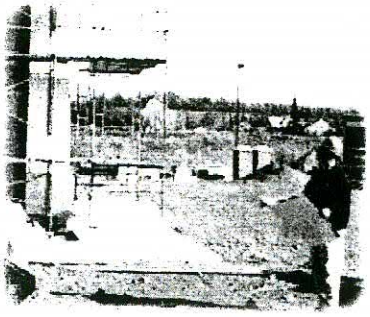
-LUKE 2:10-11

MERRY CHRISTMAS

from FRANKLIN, JANE AUSTIN, *and* CISSIE GRAHAM



Plan Review Bureau



The Division of Fire and Life Safety is the State Building Official.

Construction, repair, remodel, addition, or change of occupancy of any building/structure, or installation or change of fuel tanks must be approved by the Division of Fire and Life Safety before ANY work is started.

Residential housing that is three-plex or smaller is exempt from this requirement.

Exception: The following jurisdictions have accepted a deferral for full code enforcement and plans should be submitted directly to the city:

Anchorage - (907) 267-4900
Juneau - (907) 586-0770 or (907) 586-0715
Fairbanks - (907) 459-6720
Kenai - (907) 283-7535
Seward - (907) 224-4049
Kodiak - (907) 486-8072
Sitka - (907) 747-1806
Soldotna - (907) 262-9107
University of Alaska Fairbanks - (907) 474-7721
Wasilla/Lakes - (907) 373-8802

Plans and specifications regarding the location of the building or structure on the property, area, height, number of stories, occupancy, type of construction, interior finish, exit facilities, electrical systems, mechanical systems, fuel storage tanks and their appurtenances, automatic fire-extinguishing systems, and fire alarm systems must be submitted by the owner or owner's representative to the Division of Fire and Life Safety for examination and approval. This review does not address structural considerations or accessibility requirements. Mechanical and electrical review is limited to that which is necessary to confirm compliance with fire and life safety requirements.

It is prohibited to occupy a building for which plans have not been examined and approved.

If any work for which a plan review and approval is required has been started without first obtaining plan review and approval, an additional special processing plan review fee of $100 is charged for the first violation. The special processing plan review fee for a subsequent violation by the same person is an additional charge equal to the amount of the standard plan review fee for the project.

The Building Permit Process:

- Submit completed plan review application form and construction documents (applications and forms below) to the Plans Review Bureau.
  - Plan Review Application
  - Application for Modification (Fill-In Form)
  - Group "E" Occupancy Home Day Care Facilities (6 to 12 Persons) Application
  - Group "R-4" Occupancy Residential Care/Assisted Living Facilities (6 to 16 Occupants, Excluding Staff) Application
- A plan review fee will be calculated by the Division of Fire and Life Safety.
- The plans are reviewed **after** receipt of the fee.
- The review is usually within TEN working days, however, additional information may be required.
- After the review is complete, a permit is issued.
- A copy of the plan review approval certificate must be posted as required in 13 AAC 55.100(b).

Authority: AS 18.70.080

Alaska Administrative Code: 13 AAC 50.027

Division Links
Director's Office
Life Safety Inspection Bureau
Training and Education Bureau

Quick Links
Alaska Fire & Life Safety Regulations
Alaska Fire Statistics
ANFIRS
Division Forms
Division Offices
FD Registration & Directory
Fire Training
Missions & Measures (Investing For Results)
Project Code Red
Public Fire Education

News Releases
Division News

Where an elevation change of 30 inches (762 mm) or less occurs between a cross aisle and the adjacent floor or grade below, guards not less than 26 inches (660 mm) above the aisle floor shall be provided.

Exception: Where the backs of seats on the front of the cross aisle project 24 inches (610 mm) or more above the adjacent floor of the aisle, a guard need not be provided.

1024.14.2 Sightline-constrained guard heights. Unless subject to the requirements of Section 1024.14.3, a fascia or railing system in accordance with the guard requirements of Section 1012 and having a minimum height of 26 inches (660 mm) shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating. At bleachers, a guard must be provided where the floor or footboard elevation is more than 24 inches (610 mm) above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of the immediately adjacent seating.

1024.14.3 Guards at the end of aisles. A fascia or railing system complying with the guard requirements of Section 1012 shall be provided for the full width of the aisle where the foot of the aisle is more than 30 inches (762 mm) above the floor or grade below. The fascia or railing shall be a minimum of 36 inches (914 mm) high and shall provide a minimum 42 inches (1067 mm) measured diagonally between the top of the rail and the nosing of the nearest tread.

1024.15 Bench seating. Where bench seating is used, the number of persons shall be based on one person for each 18 inches (457 mm) of length of the bench.

✓ SECTION 1025
EMERGENCY ESCAPE AND RESCUE

1025.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group R as applicable in Section 101.2 and Group I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such opening shall open directly into a public street, public alley, yard or court.

Exceptions:

1. In other than Group R-3 occupancies as applicable in Section 101.2, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. In other than Group R-3 occupancies as applicable in Section 101.2, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.
3. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
4. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue windows.
5. High-rise buildings in accordance with Section 403.
6. Emergency escape and rescue openings are not required from basements or sleeping rooms which have an exit door or exit access door that opens directly into a public street, public alley, yard, egress court or to an exterior exit balcony that opens to a public street, public alley, yard or egress court.
7. Basements without habitable spaces and having no more than 200 square feet (18.6 square meters) in floor area shall not be required to have emergency escape windows.

1025.2 Minimum size. Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m^2).

Exception: The minimum net clear opening for emergency escape and rescue grade-floor openings shall be 5 square feet (0.46 m^2).

1025.2.1 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1025.3 Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1025.4 Operational constraints. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1025.2 and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening. Where such bars, grilles, grates or similar devices are installed in existing buildings, smoke alarms shall be installed in accordance with Section 907.2.10 regardless of the valuation of the alteration.

1025.5 Window wells. An emergency escape and rescue opening with a finished sill height below the adjacent ground level shall be provided with a window well in accordance with Sections 1025.5.1 and 1025.5.2.

1025.5.1 Minimum size. The minimum horizontal area of the window well shall be 9 square feet (0.84 m^2), with a minimum dimension of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

1025.5.2 Ladders or steps. Window wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an approved permanently affixed ladder or steps. Lad-

GCI purchases rural telecoms

$40 MILLION: Expansion acquires companies in Togiak, Hooper Bay.

By WESLEY LOY
wloy@adn.com
Published: October 16, 2007
Last Modified: October 16, 2007 at 02:36 AM

General Communication Inc. is continuing its march into rural Alaska, announcing a deal Monday to buy two telecom operations from a holding company owned by two southwest Native village corporations.

Anchorage-based GCI, one of the state's largest phone, cable TV and Internet providers, will pay $40 million for the stock of United Utilities and Unicom, subsidiaries of United Companies Inc. or UCI, which is owned by Native corporations for the villages of Hooper Bay and Togiak.

United Utilities provides local telephone service to 60 rural communities statewide.

Unicom operates DeltaNet, a broadband microwave network that by next summer will link more than 40 villages around the Yukon-Kuskokwim Delta to regional hub Bethel.

GCI's president, Ron Duncan, said that by using DeltaNet, GCI will shave more than $8 million off the capital expenditures that would have been needed to roll out wireless service in the Delta.

Myron Naneng, president of Sea Lion Corp., the village Native corporation for Hooper Bay, called GCI's takeover of the UCI subsidiaries "a major event."

"We founded UCI in 1977 not only as an investment but also as a way to provide essential communications services to villages throughout our region," Naneng said. "We will work with GCI to ensure a smooth transition for both customers and employees."

GCI is a publicly traded company offering phone, cable TV and other telecom services in Anchorage, Mat-Su, Fairbanks, Juneau and a growing list of rural places.

Only last month, GCI announced it was buying Alaska Wireless Communications, a cellular phone provider for the Bering Sea commercial fishing port of Dutch Harbor.

The UCI deal is expected to close in the second quarter of next year, pending approval from regulators including the Federal Communications Commission and the Regulatory Commission of Alaska.

The UCI subsidiaries will keep their brand names and management staffs, GCI said.

Find Wesley Loy online at adn.com/contact/wloy or call 257-4590.

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From Lieutenant Governor Sean Parnell website

Hooper Bay--One Year Later

(September 26, 2007, Anchorage) - Lieutenant Governor Sean Parnell said, "Bravo!" to the village of Hooper Bay for its recovery and "can do" community attitude following a devastating fire just over a year ago. The fire wiped out the school and homes in an area where between 60 to 80 villagers lived. Lieutenant Governor Parnell visited Hooper Bay on Tuesday, and found promising signs of recovery and community-from a fully functioning new school, to a new water treatment plant, to construction of a number of new homes for those whose homes were destroyed in the fire.

Besides the courageous people of Hooper Bay, the lieutenant governor especially credited **Samaritan's Purse** for stepping in and providing volunteer labor and materials last fall to replace homes; for working this summer to build a new teen center among other structures; and for teaching students of the Hooper Bay School worthwhile job skills, like carpentry, which went toward high school credit-as the high school students worked side by side with Samaritan's Purse volunteers to rebuild the village structures lost to fire.

Lieutenant Governor Parnell said of the community's progress, "Although we have a long way to go in Hooper Bay to bring safe water and sewer services to the people and to provide safe, adequate landfill services, the volunteers who willingly gave of their time and incorporated village residents and students into the work may have provided a useful model for how to accelerate such projects in the future-providing hope and opportunity along the way."

Anchorage Daily News – 09/01/2007

SPOTLIGHT: RESOURCES

Coastal fishermen get big boost

PROCESSING PLANT: Platinum salmon facility should be running in 2009.

By SAMANTHA ROSLUND
The (Bethel) Tundra Drums

BETHEL — A large salmon-processing plant is being built in Platinum and is scheduled for completion in 2009.

Construction on four more Delta fishery support centers is also under way, and these are scheduled to be up and running this month.

The Coastal Villages Regional Fund, a corporation that supports the Community Development Quota Program instituted in 1992, is building the centers in Napaskiak, Napakiak, Chevak and Goodnews Bay as well as the salmon plant in Platinum.

Making another salmon-processing plant available to western Alaska fishers is envisioned as greatly helping local economies by lifting a practical upper limit placed on fishing due to inability to process the volume.

Money normally made its way to the bigger fishing outfits, many of them in the Pacific Northwest or foreign operated.

"The scale of this project is probably the largest ever undertaken by CDQ. It will benefit all communities in the Delta," said Morgan Crowe, executive director of Coastal Villages. "Plant workers from way upriver will be able to come down and have a market for their salmon. Young people will be able to find work there for the summer."

The only other salmon-processing plant in western Alaska is in Quinhagak, and the opening of the new plant will double processing

See Page E-4, SALMON

SALMON: *New plant*

Continued from E-1

capabilities for the region.

There are 20 villages involved in the Coastal Villages Region Fund, and the goal is to have an operating fishery support center in every one, in addition to the halibut- and salmon-processing plants opened up throughout the region.

Already open and operating are the centers in Eek, Scammon Bay, Hooper Bay, Toksook Bay, Tununak, Nightmute, Chefornak, Kwigillingok, Kongiganak and Mekoryuk.

Authorized by the Magnuson-Stevens Act, the Coastal Villages Regional Fund is one of six community development regions that were set up to enable the people along the Bering coast and certain villages within 50 miles of the coast to take advantage of fishing resources in the area.

Mike Bird, senior project manager of the CDQ, works with the board members made up of local people from the villages, to get an idea of what each particular region needs.

"Whenever you get two or three councils together, and the public, you have a lot of listening to do," he said. "You've got to pay attention to what folks are saying so you recognize what their needs and desires are to accomplish what you're doing."

Support centers are customized to meet the needs of the particular community in which they are located. Some may have a net loft and a garage, others may have the technology to repair heavy equipment.

Centers are used as places to get in out of the weather to work on boats, motors and nets. Some centers have areas for net storage where people can hang them up, fix them and prepare them for storage.

"They won't have to sit on the ground in the snow, as they have traditionally, which limits their longevity," Bird said.

In addition to much-needed equipment and shop space, the centers provide local fishers with experienced, talented repairmen and welders.

"In addition to the two standard employees, the whole mission of CDQ is to create economic opportunity for that community," Bird said. "We've got some really great people working for us."

He went on to explain that they were able to bring on more welders this spring to help out with all the necessary preparation work that needs to be done before the season starts.

Each center has a business plan in place and is run accordingly. There are set fees for repairs and shop usage. Normally, the mechanics work a couple of hours a day and stay on if there is an influx of work.

"Having been around the villages for more than 25 years, it's exciting for me to see these facilities established in the villages," Bird said. "It was always something that was never available and now it's there for the communities to use."

APPENDIX D

COST ESTIMATES

OPERATIONS AND MANAGEMENT WORKSHEET (WTP)

Enter the appropriate cost information only in the cells.
The BLUE cells will automatically be calculated.

Operation and Maintenance Expense	Annual Estimate
Personnel	**$0**
Utilities	**$2,500**
Materials and Equipment	**$600**
Other	**$1,720**
Total O&M Expenses	**$4,820**

Details

Personnel	Totals from Detail Below
Administrative Personnel	$0
Maintenance Personnel	$0
Custodial Personnel	$0
Other Personnel	$0
Personnel Total	**$0**

Utilities	Unit	Cost per Unit	x Units per Year	= Annual Cost
Fuel	1	$2,000	1	$2,000
Electricity	1	$500	1	$500
				$0
				$0
				$0
			Utility Total	**$2,500**

Materials and Equipment	Monthly Cost	Annual Cost
Mechanical maintenance	$50	$600
		$0
		$0
		$0
		$0
Materials & Equipment Total		**$600**

Other	Unit	Cost per Unit	x Units per Year	= Annual Cost
Insurance	1	$720	1	$720
Legal & accounting	1	$1,000	1	$1,000
				$0
				$0
				$0
			Other ExpenseTotal	**$1,720**

OPERATIONS AND MANAGEMENT WORKSHEET (Old Clinic)

Enter the appropriate cost information only in the cells.
The cells will automatically be calculated.

Operation and Maintenance Expense	Annual Estimate
Personnel	**$0**
Utilities	**$6,000**
Materials and Equipment	**$1,200**
Other	**$1,480**
Total O&M Expenses	**$8,680**

Details

Personnel	Totals from Detail Below
Administrative Personnel	$0
Maintenance Personnel	$0
Custodial Personnel	$0
Other Personnel	$0
Personnel Total	**$0**

Utilities	Unit	Cost per Unit	x Units per Year	= Annual Cost
Fuel	1	$6,000	1	$6,000
				$0
				$0
				$0
				$0
			Utility Total	**$6,000**

Materials and Equipment	Monthly Cost	Annual Cost
Mechanical maintenance	$100	$1,200
		$0
		$0
		$0
		$0
Materials & Equipment Total		**$1,200**

Other	Unit	Cost per Unit	x Units per Year	= Annual Cost
Legal & Accounting		$1,000	1	$1,000
Insurance		$480	1	$480
				$0
				$0
				$0
			Other ExpenseTotal	**$1,480**

3/20

OPERATIONS AND MANAGEMENT WORKSHEET (Old WTP)

Enter the appropriate cost information only in the cells.
The BLUE cells will automatically be calculated.

Operation and Maintenance Expense	Annual Estimate
Personnel	**$0**
Utilities	**$4,000**
Materials and Equipment	**$600**
Other	**$1,480**
Total O&M Expenses	**$6,080**

Details

Personnel	Totals from Detail Below
Administrative Personnel	$0
Maintenance Personnel	$0
Custodial Personnel	$0
Other Personnel	$0
Personnel Total	**$0**

Utilities	Unit	Cost per Unit	x Units per Year	= Annual Cost
Fuel	1	$4,000	1	$4,000
				$0
				$0
				$0
				$0
			Utility Total	**$4,000**

Materials and Equipment	Monthly Cost	Annual Cost
Mechanical maint. (split w/shop)	$50	$600
		$0
		$0
		$0
		$0
Materials & Equipment Total		**$600**

Other	Unit	Cost per Unit	x Units per Year	= Annual Cost
Legal & Accounting		$1,000	1	$1,000
Insurance		$480	1	$480
				$0
				$0
				$0
			Other ExpenseTotal	**$1,480**

OPERATIONS AND MANAGEMENT WORKSHEET (Atco)

Enter the appropriate cost information only in the cells.
The cells will automatically be calculated.

Operation and Maintenance Expense	Annual Estimate
Personnel	**$0**
Utilities	**$3,000**
Materials and Equipment	**$1,200**
Other	**$1,480**
Total O&M Expenses	**$5,680**

Details

Personnel	Totals from Detail Below
Administrative Personnel	$0
Maintenance Personnel	$0
Custodial Personnel	$0
Other Personnel	$0
Personnel Total	**$0**

Utilities	Unit	Cost per Unit	x Units per Year	= Annual Cost
Fuel	year	$3,000	1	$3,000
				$0
				$0
				$0
				$0
			Utility Total	**$3,000**

Materials and Equipment	Monthly Cost	Annual Cost
Mechanical maintenance	$100	$1,200
		$0
		$0
		$0
		$0
Materials & Equipment Total		**$1,200**

Other	Unit	Cost per Unit	x Units per Year	= Annual Cost
Legal & Accounting	year	$1,000	1	$1,000
Insurance	year	$480	1	$480
				$0
				$0
				$0
			Other ExpenseTotal	**$1,480**

5/20

REPAIR AND REPLACEMENT (R&R) WORKSHEET (WTP)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Repair and Replacement Expense	Number of Items	(multiplied by) Cost to Replace	(divided by) Useful Life in Years	(equals) Annual Estimate
Equipment				
Furnace	1	$2,500	12	**$208**
Water heater	1	$8,000	10	**$800**
			1	**$0**
			1	**$0**
			1	**$0**
			1	**$0**
Furnishings				
			1	**$0**
			1	**$0**
			1	**$0**
Annual Repair and Replacement Total				**$1,008**

Notes

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REPAIR AND REPLACEMENT (R&R) WORKSHEET (Old Clinic)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Repair and Replacement Expense	Number of Items	(multiplied by) Cost to Replace	(divided by) Useful Life in Years	(equals) Annual Estimate
Equipment				
Furnace	1	$2,500	8	**$313**
Water heater	1	$8,000	6	**$1,333**
Roof	1	$5,000	15	**$333**
			1	**$0**
			1	**$0**
			1	**$0**
Furnishings				
			1	**$0**
			1	**$0**
			1	**$0**
Annual Repair and Replacement Total				**$1,979**

Notes

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REPAIR AND REPLACEMENT (R&R) WORKSHEET (Old WTP)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Repair and Replacement Expense	Number of Items	(multiplied by) Cost to Replace	(divided by) Useful Life in Years	(equals) Annual Estimate
Equipment				
Furnace (split w/shop)	1	$1,250	8	**$156**
Water heater (split w/shop)	1	$4,000	6	**$667**
Roof	1	$5,000	15	**$333**
			1	**$0**
			1	**$0**
			1	**$0**
Furnishings				
			1	**$0**
			1	**$0**
			1	**$0**
Annual Repair and Replacement Total				**$1,156**

Notes

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REPAIR AND REPLACEMENT (R&R) WORKSHEET (Atco)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Repair and Replacement Expense	Number of Items	(multiplied by) Cost to Replace	(divided by) Useful Life in Years	(equals) Annual Estimate
Equipment				
Furnace	1	$2,500	8	**$313**
Water heater	1	$8,000	6	**$1,333**
Roof	1	$5,000	15	**$333**
			1	**$0**
			1	**$0**
			1	**$0**
Furnishings				
			1	**$0**
			1	**$0**
			1	**$0**
Annual Repair and Replacement Total				**$1,979**

Notes

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CAPITAL REPLACEMENT WORKSHEET (WTP)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Capital Replacement Expense		
Facilty Cost:	**$300,000**	
Inflation Rate:	3.5%	
Expected Life in Years:	30	
Future Value of Facility (Cost with inflation):	**$842,038**	(formula for future value of an asset)
Percent Local Cash Required for Replacement:	20%	
20% Capital Replacement Amount:	**$168,408**	(future value multiplied by % local cash required)
Expected Interest Rate:	4.0%	
Annual Capital Replacement Expense	**$3,003**	(formula for determining annual capital replacement amount)

Capital Replacement Fund				
Year	**Start of Year Balance**	**Annual Deposit**	**Interest Earnings**	**End of Year Balance**
1	$0	$3,003	$0	$3,003
2	$3,003	$3,003	$120	$6,126
3	$6,126	$3,003	$245	$9,373
4	$9,373	$3,003	$375	$12,751
5	$12,751	$3,003	$510	$16,264
6	$16,264	$3,003	$651	$19,917
7	$19,917	$3,003	$797	$23,716
8	$23,716	$3,003	$949	$27,668
9	$27,668	$3,003	$1,107	$31,777
10	$31,777	$3,003	$1,271	$36,051
11	$36,051	$3,003	$1,442	$40,496
12	$40,496	$3,003	$1,620	$45,118
13	$45,118	$3,003	$1,805	$49,926
14	$49,926	$3,003	$1,997	$54,926
15	$54,926	$3,003	$2,197	$60,125
16	$60,125	$3,003	$2,405	$65,533
17	$65,533	$3,003	$2,621	$71,157
18	$71,157	$3,003	$2,846	$77,006
19	$77,006	$3,003	$3,080	$83,089
20	$83,089	$3,003	$3,324	$89,415
21	$89,415	$3,003	$3,577	$95,995
22	$95,995	$3,003	$3,840	$102,837
23	$102,837	$3,003	$4,113	$109,953
24	$109,953	$3,003	$4,398	$117,354
25	$117,354	$3,003	$4,694	$125,051
26	$125,051	$3,003	$5,002	$133,056
27	$133,056	$3,003	$5,322	$141,381
28	$141,381	$3,003	$5,655	$150,039
29	$150,039	$3,003	$6,002	$159,043
30	$159,043	$3,003	$6,362	$168,408

10/20

CAPITAL REPLACEMENT WORKSHEET (Old Clinic)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Capital Replacement Expense		
Facilty Cost:	**$200,000**	
Inflation Rate:	3.5%	
Expected Life in Years:	20	
Future Value of Facility (Cost with inflation):	**$397,958**	(formula for future value of an asset)
Percent Local Cash Required for Replacement:	20%	
20% Capital Replacement Amount:	**$79,592**	(future value multiplied by % local cash required)
Expected Interest Rate:	4.0%	
Annual Capital Replacement Expense	**$2,673**	(formula for determining annual capital replacement amount)

Capital Replacement Fund				
Year	**Start of Year Balance**	**Annual Deposit**	**Interest Earnings**	**End of Year Balance**
1	$0	$2,673	$0	$2,673
2	$2,673	$2,673	$107	$5,453
3	$5,453	$2,673	$218	$8,343
4	$8,343	$2,673	$334	$11,350
5	$11,350	$2,673	$454	$14,477
6	$14,477	$2,673	$579	$17,729
7	$17,729	$2,673	$709	$21,111
8	$21,111	$2,673	$844	$24,628
9	$24,628	$2,673	$985	$28,286
10	$28,286	$2,673	$1,131	$32,090
11	$32,090	$2,673	$1,284	$36,047
12	$36,047	$2,673	$1,442	$40,161
13	$40,161	$2,673	$1,606	$44,441
14	$44,441	$2,673	$1,778	$48,891
15	$48,891	$2,673	$1,956	$53,520
16	$53,520	$2,673	$2,141	$58,333
17	$58,333	$2,673	$2,333	$63,339
18	$63,339	$2,673	$2,534	$68,546
19	$68,546	$2,673	$2,742	$73,960
20	$73,960	$2,673	$2,958	$79,592
21	$79,592	$2,673	$3,184	$85,448
22	$85,448	$2,673	$3,418	$91,539
23	$91,539	$2,673	$3,662	$97,873
24	$97,873	$2,673	$3,915	$104,461
25	$104,461	$2,673	$4,178	$111,312
26	$111,312	$2,673	$4,452	$118,437
27	$118,437	$2,673	$4,737	$125,848
28	$125,848	$2,673	$5,034	$133,555
29	$133,555	$2,673	$5,342	$141,570
30	$141,570	$2,673	$5,663	$149,905

11/20

CAPITAL REPLACEMENT WORKSHEET (old WTP)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Capital Replacement Expense		
Facilty Cost:	**$200,000**	
Inflation Rate:	3.5%	
Expected Life in Years:	20	
Future Value of Facility (Cost with inflation):	**$397,958**	(formula for future value of an asset)
Percent Local Cash Required for Replacement:	20%	
20% Capital Replacement Amount:	**$79,592**	(future value multiplied by % local cash required)
Expected Interest Rate:	4.0%	
Annual Capital Replacement Expense	**$2,673**	(formula for determining annual capital replacement amount)

Capital Replacement Fund				
Year	**Start of Year Balance**	**Annual Deposit**	**Interest Earnings**	**End of Year Balance**
1	$0	$2,673	$0	$2,673
2	$2,673	$2,673	$107	$5,453
3	$5,453	$2,673	$218	$8,343
4	$8,343	$2,673	$334	$11,350
5	$11,350	$2,673	$454	$14,477
6	$14,477	$2,673	$579	$17,729
7	$17,729	$2,673	$709	$21,111
8	$21,111	$2,673	$844	$24,628
9	$24,628	$2,673	$985	$28,286
10	$28,286	$2,673	$1,131	$32,090
11	$32,090	$2,673	$1,284	$36,047
12	$36,047	$2,673	$1,442	$40,161
13	$40,161	$2,673	$1,606	$44,441
14	$44,441	$2,673	$1,778	$48,891
15	$48,891	$2,673	$1,956	$53,520
16	$53,520	$2,673	$2,141	$58,333
17	$58,333	$2,673	$2,333	$63,339
18	$63,339	$2,673	$2,534	$68,546
19	$68,546	$2,673	$2,742	$73,960
20	$73,960	$2,673	$2,958	$79,592
21	$79,592	$2,673	$3,184	$85,448
22	$85,448	$2,673	$3,418	$91,539
23	$91,539	$2,673	$3,662	$97,873
24	$97,873	$2,673	$3,915	$104,461
25	$104,461	$2,673	$4,178	$111,312
26	$111,312	$2,673	$4,452	$118,437
27	$118,437	$2,673	$4,737	$125,848
28	$125,848	$2,673	$5,034	$133,555
29	$133,555	$2,673	$5,342	$141,570
30	$141,570	$2,673	$5,663	$149,905

12/20

CAPITAL REPLACEMENT WORKSHEET (Atco)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Capital Replacement Expense		
Facilty Cost:	**$200,000**	
Inflation Rate:	3.5%	
Expected Life in Years:	25	
Future Value of Facility (Cost with inflation):	**$472,649**	(formula for future value of an asset)
Percent Local Cash Required for Replacement:	20%	
20% Capital Replacement Amount:	**$94,530**	(future value multiplied by % local cash required)
Expected Interest Rate:	4.0%	
Annual Capital Replacement Expense	**$2,270**	(formula for determining annual capital replacement amount)

Capital Replacement Fund				
Year	**Start of Year Balance**	**Annual Deposit**	**Interest Earnings**	**End of Year Balance**
1	$0	$2,270	$0	$2,270
2	$2,270	$2,270	$91	$4,630
3	$4,630	$2,270	$185	$7,086
4	$7,086	$2,270	$283	$9,639
5	$9,639	$2,270	$386	$12,294
6	$12,294	$2,270	$492	$15,056
7	$15,056	$2,270	$602	$17,928
8	$17,928	$2,270	$717	$20,915
9	$20,915	$2,270	$837	$24,021
10	$24,021	$2,270	$961	$27,252
11	$27,252	$2,270	$1,090	$30,612
12	$30,612	$2,270	$1,224	$34,106
13	$34,106	$2,270	$1,364	$37,740
14	$37,740	$2,270	$1,510	$41,520
15	$41,520	$2,270	$1,661	$45,450
16	$45,450	$2,270	$1,818	$49,538
17	$49,538	$2,270	$1,982	$53,790
18	$53,790	$2,270	$2,152	$58,211
19	$58,211	$2,270	$2,328	$62,809
20	$62,809	$2,270	$2,512	$67,592
21	$67,592	$2,270	$2,704	$72,565
22	$72,565	$2,270	$2,903	$77,738
23	$77,738	$2,270	$3,110	$83,117
24	$83,117	$2,270	$3,325	$88,711
25	$88,711	$2,270	$3,548	$94,530
26	$94,530	$2,270	$3,781	$100,581
27	$100,581	$2,270	$4,023	$106,874
28	$106,874	$2,270	$4,275	$113,419
29	$113,419	$2,270	$4,537	$120,225
30	$120,225	$2,270	$4,809	$127,304

13/20

REVENUE WORKSHEET (WTP)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Revenue Source	Monthly Rate	# of Units	Subtotals	Annual Estimate
Lease Revenue				**$ 21,600**
Storage or Office	$ 1,800	1	$ 21,600	
			$ -	
Rental Revenue				**$ -**
			$ -	
			$ -	
			$ -	
			$ -	
Other Revenue				**$ 2,500**
Fuel & electricity reimburse	$ 208	1	$ 2,500	
			Total Annual Revenue	**$ 24,100**

Notes

REVENUE WORKSHEET (Old Clinic)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Revenue Source	Monthly Rate	# of Units	Subtotals	Annual Estimate
Lease Revenue				**$ 18,000**
Office space	$ 1,500	1	$ 18,000	
			$ -	
Rental Revenue				**$ -**
			$ -	
			$ -	
			$ -	
			$ -	
Other Revenue				**$ 6,000**
Fuel reimbursement	$ 500	1	$ 6,000	
			Total Annual Revenue	**$ 24,000**

Notes

REVENUE WORKSHEET (old WTP)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Revenue Source	Monthly Rate	# of Units	Subtotals	Annual Estimate
Lease Revenue				**$ -**
			$ -	
			$ -	
Rental Revenue				**$ 14,400**
Duplex	$ 600	2	$ 14,400	
			$ -	
			$ -	
			$ -	
Other Revenue				**$ 4,000**
Fuel reimbursement	$ 167	2	$ 4,000	
			Total Annual Revenue	**$ 18,400**

Notes

16/20

REVENUE WORKSHEET (Atco)

Enter the appropriate cost information only in the cells. The cells will automatically be calculated.

Revenue Source	Monthly Rate	# of Units	Subtotals	Annual Estimate
Lease Revenue				**$ -**
			$ -	
			$ -	
Rental Revenue				**$ 21,600**
Boarding facility	$ 1,800	1	$ 21,600	
			$ -	
			$ -	
			$ -	
Other Revenue				**$ 3,000**
Fuel reimbursement	$ 250	1	$ 3,000	
			Total Annual Revenue	**$ 24,600**

Notes

17/20

NET INCOME WORKSHEET (WTP)

All information on this sheet is calculated from information entered on the O&M, R&R, Capital Replacement and Revenue worksheets.

Make any changes needed to those sheets directly. This sheet will be automatically updated..

Revenue		
Lease Revenue	$21,600	
Rental Revenue	$0	
Other Revenue	$2,500	
	Total Revenue	$24,100
Expenses		
Operation and Maintenance Expense	$4,820	
Repair and Replacement Expense	$1,008	
Capital Replacement Account	$3,003	
	Total Expenses	$8,831
	Net Income (Loss)	**$15,269**

NET INCOME WORKSHEET (Old Clinic)

All information on this sheet is calculated from information entered on the O&M, R&R, Capital Replacement and Revenue worksheets.

Make any changes needed to those sheets directly. This sheet will be automatically updated..

Revenue		
Lease Revenue	$18,000	
Rental Revenue	$0	
Other Revenue	$6,000	
	Total Revenue	**$24,000**
Expenses		
Operation and Maintenance Expense	$8,680	
Repair and Replacement Expense	$1,979	
Capital Replacement Account	$2,673	
	Total Expenses	**$13,332**
	Net Income (Loss)	**$10,668**

19/20

NET INCOME WORKSHEET (old WTP)

All information on this sheet is calculated from information entered on the O&M, R&R, Capital Replacement and Revenue worksheets.

Make any changes needed to those sheets directly. This sheet will be automatically updated..

Revenue		
Lease Revenue	$0	
Rental Revenue	$14,400	
Other Revenue	$4,000	
	Total Revenue	**$18,400**
Expenses		
Operation and Maintenance Expense	$6,080	
Repair and Replacement Expense	$1,156	
Capital Replacement Account	$2,673	
	Total Expenses	**$9,909**
	Net Income (Loss)	**$8,491**

20/20

NET INCOME WORKSHEET (Atco)

All information on this sheet is calculated from information entered on the O&M, R&R, Capital Replacement and Revenue worksheets.

Make any changes needed to those sheets directly. This sheet will be automatically updated..

Revenue		
Lease Revenue	$0	
Rental Revenue	$21,600	
Other Revenue	$3,000	
	Total Revenue	**$24,600**
Expenses		
Operation and Maintenance Expense	$5,680	
Repair and Replacement Expense	$1,979	
Capital Replacement Account	$2,270	
	Total Expenses	**$9,929**
	Net Income (Loss)	**$14,671**

New WTP/Washeteria Business Plan
from Roger Burleigh, P.E., VSW
09/07/2007

Gallons of Water

** Proportional to monthly water usage														
School & Teacher Housing Demand	40,000	30,000	40,000	111,112	111,111	111,111	111,111	111,111	111,111	111,111	111,111	111,111	1,110,000	1,110,000
Washers	52,433	52,433	52,433	52,433	52,433	52,433	52,433	52,433	52,433	52,433	52,433	52,433	629,196	629,200
Watering Point	83,646	83,646	83,646	83,646	83,646	83,646	83,646	83,646	83,646	83,646	83,646	83,646	1,003,752	1,003,750
Showers	35,750	35,750	35,750	35,750	35,750	35,750	35,750	35,750	35,750	35,750	35,750	35,750	429,000	429,000
Toilet & Lavatory Sink	4,767	4,767	4,767	4,767	4,767	4,767	4,767	4,767	4,767	4,767	4,767	4,767	57,204	57,200
														3,229,150
Monthly Water Demand	216,596	206,596	216,596	287,708	287,707	287,707	287,707	287,707	287,707	287,707	287,707	287,707		
Annual Water Demand	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150	3,229,150		

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

Water

Water Usage

School & Teacher Housing	5,000	gal/day	x	220	days						=	1,100,000	gal/yr	A
Washeteria	220	households	x	2	loads/hous	x	52	week/yr	x	25 gal/load	=	572,000	gal/yr	B
Watering Point	1000	people	x	2.5	gal/day-per	x	365	day/yr			=	912,500	gal/yr	C
Showers	500	people/wee	x	15	gal/shower	x	52	week/yr			=	390,000	gal/yr	D
Toilets & Lavatory sinks	500	people/wee	x	2	use	x	52	week/yr			=	52,000	gal/yr	E
Equivalent Residential Service	0	homes	x	5	people/hom	x	35	gal/person-	x	365 day/yr	=	0	gal/yr	F
										Subtotal		3,026,500	gal/yr	G
Backwash & Rinse Water	5%		x	3,026,500	gals						=	151,325	gal/yr	H
												3,177,825	gal/yr	I
Total Circulation												1,155,001	gal/yr	J = (A X 1.05) + (F x 1.05)
Residential Services Multiplier for Raw Water Heating to apply to School & Teacher Housing base rate												0.05		K = (J - A) / A
Satellite Wastewater												1,100,000	gal/yr	
Base Total Water Usage (No Residential Services)												3,177,825	gal/yr	

1.05 factor in computing "J" comes from adjusting water demands for 5% backwash

Fuel Demand: To Make Water	Base: Washeteria + School Service	Multiplier for XX homes**	Annual Fuel Demand with Multiplier
Raw Water Loop Heating	1,000 gal/year	1	1,000 gal/year
Raw water heating	5,000 gal/year	0.05	250 gal/year
Water Storage Tank Heating	1,000 gal/year	1	1,000 gal/year
Building Heat	5,000 gal/year	1	5,000 gal/year
	12,000 gal/year		7,250 gal/year

** This factor is generated in the Annual Water Usage worksheet by changing the number of homes served.

Fuel Demand: To Heat Water for Distribution		Base: Washeteria + School Service	Multiplier for XX homes**	Annual Fuel Demand with Multiplier
School	Circulation	4,000 gal/year	1	4,000 gal/year
Watering point		400 gal/year	1	400 gal/year
Washeteria	Dryer##	10,000 gal/year	1.00	10,000 gal/year
Washeteria	Dryer Preheat##	3,000 gal/year	1.00	3,000 gal/year
Washeteria	Shower**	300 gal/year	1.00	300 gal/year
Washeteria	Washer##	5,000 gal/year	1.00	5,000 gal/year
Washeteria	Sauna	100 gal/year	1	100 gal/year
		22,800 gal/year		22,800 gal/year
		Annual Fuel Demand Estimate		30,050 gal/year

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

^^ Multiplier: The multiplier is applied to the base estimates to represent the significant addition of equivalent residential service connections The multiplier is not directly correlated to the water consumption in most system demands. The system where there is a direct correlation is in Raw Water Heating. Other system demands, such as Water Storage Tank Heating, operate with little change despite the water usage. The multiplier is in direct proportion to the increase of the estimated water usage over the base.

Multipliers for washeteria systems asssume 50% of houses served with W&S will still use the washeteria. Base number of homes = 220 and should be updated as needed.

** Multipliers for showers at the washeteria show a decrease in direct proportion to the number of homes being served.

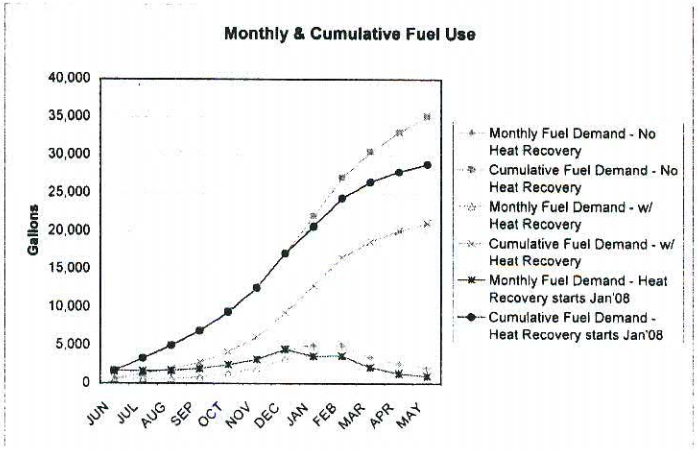
Gallons of Fuel

EVENT	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	Annual Estimate		Multiplier for XX Residential Customers	Number of Residential Services
Multiplier for Shower Useage																
Multiplier for Washetena Users	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	0
Raw Water Multiplier for X Residential Services**	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			0.05	0
Raw Water Heating**	335	320	335	445	445	445	445	445	445	445	445	445	5,000	5,000		
Raw Water Heating w/ XX Residential Customers**	17	16	17	22	22	22	22	22	22	22	22	22	250			
Raw Water Loop Heating	0	0	0	0	50	100	200	250	275	100	25	0	1,000	1,000		
Water Storage Tank Heating	0	0	0	0	50	100	200	250	275	100	25	0	1,000	1,000		
Building Heat	40	40	40	150	200	580	950	1,000	1,000	600	250	150	5,000	5,000		
School Circulation	0	0	0	0	200	300	800	950	950	500	300	0	4,000	4,000		
Watering Point Circulation	0	0	0	0	10	55	80	95	95	55	10	0	400	400		
Washeteria Dryer	833	833	833	833	833	833	833	833	833	833	833	833	9,996	10,000		
Washeteria Dryer Preheat	0	0	0	30	200	300	520	650	650	300	200	150	3,000	3,000		
Shower Water Heating	25	25	25	25	25	25	25	25	25	25	25	25	300	300		
Washer water heating	417	417	417	417	417	417	417	417	417	417	417	417	5,004	5,000		
Sauna heating	8	8	8	8	8	8	8	8	8	8	8	8	100	100		
Sub-total of Fuel Demand Estimate	1,675	1,659	1,675	1,931	2,461	3,186	4,501	4,946	4,996	3,406	2,561	2,051	35,050			
Recovered Heat - AVEC	-1,025	-1,025	-1,025	-1,100	-1,125	-1,200	-1,275	-1,350	-1,350	-1,275	-1,225	-1,025	-14,000	14,400		
Net Monthly Fuel Demand (Heat Recovery All Year)	650	634	650	831	1,336	1,986	3,226	3,596	3,646	2,131	1,336	1,026	21,050			
Net Monthly Fuel Demand if:																
Heat Recovery starts in JAN-2008	1,675	1,659	1,675	1,931	2,461	3,186	4,501	3,596	3,646	2,131	1,336	1,026	28,825			

** This factor is generated in the Electric Estimates Sheet by changing the number of homes served

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

	With No Recovered		With Recovered Heat		Recovered Heat Starts	
	Monthly	Cumulative	Monthly	Cumulative	Monthly	Cumulative
JUN	1,675	1,675	650	650	1,675	1,675
JUL	1,659	3,335	634	1,285	1,659	3,335
AUG	1,675	5,010	650	1,935	1,675	5,010
SEP	1,931	6,941	831	2,766	1,931	6,941
OCT	2,461	9,402	1,336	4,102	2,461	9,402
NOV	3,186	12,588	1,986	6,088	3,186	12,588
DEC	4,501	17,089	3,226	9,314	4,501	17,089
JAN	4,946	22,035	3,596	12,910	3,596	20,685
FEB	4,996	27,031	3,646	16,556	3,646	24,331
MAR	3,406	30,437	2,131	18,687	2,131	26,462
APR	2,561	32,999	1,336	20,024	1,336	27,799
MAY	2,051	35,050	1,026	21,050	1,026	28,825



	HOOPER BAY WTP CALCULATIONS : Small Commercial AVEC - PCE Rate Eligible			
A1	Estimated Annual Electric Demand	109,461	kWh	
A1a	PCE Funding Level	100%		
B1	Current AVEC Energy Charge (1-700 Kwh)	$0.32	/ kWh	
B1a	Current AVEC Energy Charge (>700 Kwh)	$0.22	/ kWh	
C1	Current AVEC Fuel Cost	$0.1492	/ kWh	
D1	Estimated Average Monthly Electric Demand	9,122	/ kWh	A1/12
F1	PCE Credit rate for the 1st 700 kWh per Month **	$0.2439	/ kWh	
G1	PCE Credit rate for the > 700 kWh per Month **	$0.2218	/ kWh	
H1	Fuel Adjusted AVEC cost per kWh (1-700 Kwh)	$0.4692	/ kWh	B1+ C1
H1a	Fuel Adjusted AVEC cost per kWh (>700 Kwh)	$0.3692	/ kWh	B1a + C1
J1	Current PCE-adjusted Average Electrical Cost Rate (1-700 kWh)	$0.2253	/ kWh	B1+ C1 - (F1 x A1a)
J1a	Current PCE-adjusted Average Electrical Cost Rate (>700 kWh)	$0.1474	/ kWh	B1a + C1 - (G1 x A1a)
	Average Electrical Cost	$1,399.08		(700 x J1) + ((D1 - 700) x J1a)
K1	Customer Charge	$5.00	/ month	
L1	Current Estimated Monthly Electric Charge	$1,404.08	/ month	J1a+ K1
M1	Average Electrical Rate	$0.1539	/ kWh	

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Electric Power - Making Water

Well Field Power Demand

# of 50K gal. Process Tanks	3,177,825	gal/yr									
Well Field Pump Rate	72	gal/minute									
Power Demand of Pumps	5.5	kW									
Annual Power Consumption	3,177,825	gal/yr	÷	72	gal/minute	÷	60	minute/hour	x	5.5 kW	=	4,046 kWh/yr
Raw Water Loop Circ. Pump	0.5	kW									
Annual Power Consumption	0.5	kW	x	8,760	hours/yr						=	4,380 kWh/yr

Process Power Demand

Annual # of 50K Process Tanks	3,177,825	gal/yr	÷	50,000	gal/batch	=	64	batch/yr			
Coagulant Mixing	0.5	hr/batch									
Mixing motor power	15	kW									
Annual Power Consumption	64	batch/yr	x	0.50	hr/batch	x	15	kW			=	477 kWh/yr
Flow Rate of Transfer thru filters	260	gal/minute									
Transfer pump motor power	5	kW									
Annual Power Consumption	3,177,825	gal/yr	÷	260	gal/minute	÷	60	minute/hour	x	5 kW	=	1,019 kWh/yr
Less process water to waste	1,019	kWh/yr	x	-5%	percent						=	-51 kWh/yr
Backwash water volume	151,325	gal/yr										
Backwash pump power	11	kW										
Backwash flowrate	700	gal/minute										
Annual Power Consumption	151,325	gal/yr	÷	700	gal/minute	÷	60	minute/hour	x	11 kW	=	40 kWh/yr
Process Sludge Transfer = Backwash Power Consumption											=	40 kWh/yr
Sludge & Backwash to Lagoon = Backwash Power Consumption											=	40 kWh/yr
Water Tank Circ. motor power	0.37	kW										
Days of operation	220	days										
Annual Power Consumption	220	days	x	24	hour/day				x	0.4 kW	=	1,954 kWh/yr

Main Water Treatment Plant Miscellaneous Power Demands

Hydronic Circulation Pumps	=	3,000 kWh/yr
Unit Heater Fans	=	1,000 kWh/yr
Air Fans	=	2,000 kWh/yr
Air Exchange Fans	=	3,000 kWh/yr
Lighting and Miscellaneous	=	5,000 kWh/yr
Total Annual Electric Demand to Make Water		25,943 kWh/yr

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

Electric Power - Water Distribution

Water Distribution Power Demands (Main & Satellite Building Operations)

			Base Estimate**	Multiplier^^		
Pressurization^^	School Est.	=	1,100	0.05	=	55 kWh/yr
Circulation	School Est.	=	10,000	1.00	=	10,000 kWh/yr
Force Main Circulation	School Est.	=	10,000	1.00	=	10,000 kWh/yr
Electricity for hydronic circulation pumps	School Est.	=	2,000	1.00	=	2,000 kWh/yr
Heat-Add Circulation pumps	School Est.	=	1,000	1.00	=	1,000 kWh/yr
Watering Point: Circulation			8,000	1.00	=	8,000 kWh/yr
Washeteria: General Ventilation & Lighting			15,000	1.00	=	15,000 kWh/yr
Washeteria: Washers##			9000	1.00	=	9,000 kWh/yr
Washeteria: Dryers ##			7,000	1.00	=	7,000 kWh/yr
Washeteria: Sauna Heat			2,000	1.00	=	2,000 kWh/yr
Total Annual Electric Demand to Distribute Water						64,055 kWh/yr

** Base Estimate: These estimates relate to the initial estimate to distribute water from the Main WTP to the New School and Teacher Housing Complex

^^ Multiplier: The multiplier is applied to the base estimates to represent the significant addition of equivalent residential service connections. The multiplier is not directly correlated to the water consumption in most systems. The system where there is a direct correlation is in Pressurization. Other systems, such as circulation systems, operate with little change despite the water usage.

Multipliers for washeteria systems asssume 50% of houses served with W&S will still use the washeteria. Base number of homes = 220 and should be updated as needed.

Satellite Plant - Electric Power Demands

Satellite Plant Miscellaneous Power Demands

Hydronic Circulation Pumps	=	1,500 kWh/yr
Unit Heater Fans	=	1,000 kWh/yr
Air Fans	=	1,000 kWh/yr
Air Exchange Fans	=	2,000 kWh/yr
Lighting and Miscellaneous	=	2,500 kWh/yr
Total Annual Electric Demand - Miscellaneous Satellite Building	=	8,000 kWh/yr

Satellite Plant Vacuum & Force Main Power Demands

Annual Wastewater Volume	1,100,000	gal/yr									
Annual Vac-Pump Run-Time*	730	hours									
Vacuum pump power	15	kW									
Annual Power Consumption	730	hours	x	15	kW						=	10,950 kWh/yr
Force Main Pump Motor Power	5.6	kW									
Force Main Pump flow	200	gallon/minute									
Annual Power Consumption	1,100,000	gal/yr	÷	200	gallon/minute	÷	60	minute/hour	x	5.6 kW	=	513 kWh/yr
Total Annual Electric Demand to Operate Vacuum and Force Main Pumps											=	11,463 kWh/yr

* Based upon 2 hours per day, 365 days year, with 60 service connections + school facilities

Total Annual Electric Power Requirements for WTP, School, XX Residential Services 109,461 kWh/yr

REVENUE PROJECTION SUMMARY 2008: School Services and Washeteria Operations Plus 60 Residential Services

School Revenue	$ 8,573 /month	12 months/year				$ 102,870.48 /year
Teacher Housing Revenue	$ 3,136 /month	12 months/year				$ 37,631.28 /year
Tariff Revenue	$ 25 /month	12 months	160 households	90% Collect. Rate		$ 43,200 /year
Sauna estimates:	** 12 persons/day, $5/person/session (12x$5x260=$15,600)					$ 15,600 /year
Washer Revenue	$ 5 /wash	2 wash/household	52 week/yr	220 households		$ 114,400 /year
Dryer Revenue	$ 4 /dryer	1.5 dry/household	52 week/yr	220 households		$ 68,640 /year
Concessions at Washeteria						$ 33,400 /year
Residential Customers	$ 85.00 /month	12 months	60 households	100% Collect. Rate		$ 61,200 /year

Annual Revenue Projection $ 476,942 /year

Washeteria Chemical Base Cost Estimate for 3.3 Mgal = $ 6,000 /year
Multiplier for changes in Base Water Use = 1.00
Adjusted Chemical Cost for Residential Services = $ 6,000 /year

Total kWh Estimate 109,461 kWh/yr From Electric Estimates worksheet

Electric Power Rate Average Small-Commercial rate = $ 0.1539 kWh From PowerCostEstimation worksheet

Total Fuel Estimate 30,050 gal/yr From Fuel Estimates worksheet

Fuel Price Estimate $ 3.26 /gal Input Quoted Value Here

Number of Residential Services 0

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

EXPENSE SUMMARY

Treatment Chemicals $ 6,000 /year

Labor to Operate WTP/Washeteria

Wages & Benefits	$ 157,409 /year

Other Expenses (from 2004 Business Plan)

Pop & Concessions	$ 20,000	
Telephone	$ 900	
Office & janitorial supplies	$ 4,800	
Postage	$ 2,400	
Insurance	$ 23,520	WTP + Satellite Bldg.
Travel & training	$ 2,000	
Fees & dues	$ 1,000	
Legal services	$ 3,000	
Laboratory services	$ 3,000	
Outside accounting	$ 1,500	
Misc. & other	$ 3,500	
TOTAL OTHER EXPENSES		$ 65,620 /year

Fuel Expenses $ 98,053 /year

Electrical Expenses $16,849 /year

Sub-total Estimated Expenses $ 343,931 /year
AVEC Heat Recovery Expense Reduction $ (28,987) /year

Net Expense Estimate $ 314,944 /year

AVEC Heat Recovery (Net Expense Reduction)

"The larger the disparity in fuel cost between AVEC and the City
the larger the Net Revenue is to the City

Assumes 14,400 gallons fuel displaced at the WTP/Washeteria per 2005 AEA Report

AVEC Base Fuel Price $ 2.50 /gal
City Price $ 3.26 /gal

Net Revenue = Displaced Fuel x (City Price -- 50% AVEC Price)

Net Revenue = $ 28,987 /year

PROFIT - LOSS SUMMARY

Projected Expenses $ (314,944)
Projected Revenues $ 431,942

Profit (Loss) $ 116,998

Hooper Bay Revenue Projection 2007: School Services and Washeteria Operations only

School Revenue	$8,572.54 /month	12 months/year			$102,870.48 /year
Teacher Housing Revenue	$3,135.94 /month	12 months/year			$ 37,631.28 /year
Tariff Revenue	$ 25.00 /month	12 months	220 households	90% Collection Rate	$ 59,400 /year
Sauna estimates:	** 12 persons/day. $5/person/session (12x$5x260=$15,600)				$ 15,600 /year
Washer Revenue	$ 5.00 /wash	2 wash/household/week	52 week/yr	220 households	$ 114,400 /year
Dryer Revenue	$ 4.00 /dryer	1.5 dry/household/week	52 week/yr	220 households	$ 68,640 /year
Concessions at Washeteria					$ 33,400 /year
Residential Cust.	$ 85.00 /month	12 months	0 households	100% Collect. Rate	$ - /year
				Annual Revenue Projection	$ 431,942 /year

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

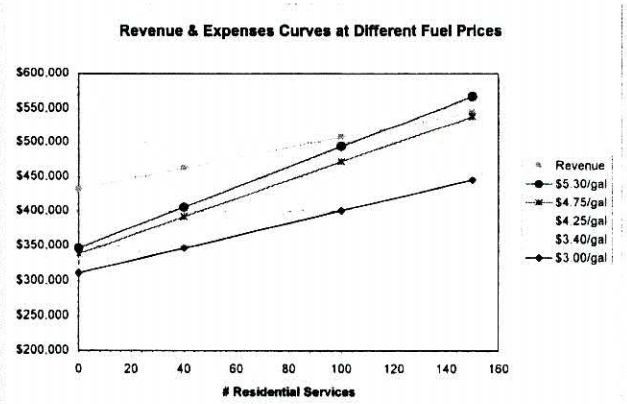
Number of Residential Homes = 0

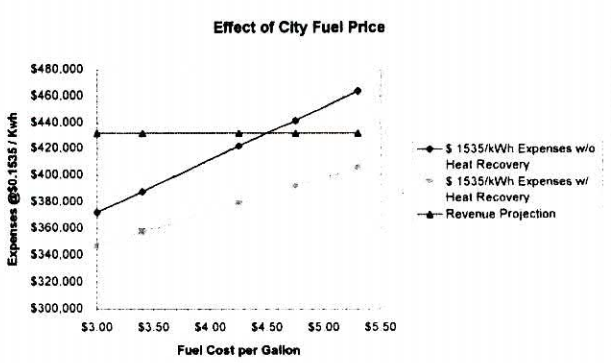
City Fuel Price	$.1535/kWh Expenses w/o Heat Recovery	$.1535/kWh Expenses w/ Heat Recovery**	$.1535/kWh Projected Revenue
$ 5.30	$ 463,835	$ 405,515	$ 431,942
$ 4.75	$ 441,850	$ 391,450	$ 431,942
$ 4.25	$ 421,863	$ 378,663	$ 431,942
$ 3.40	$ 387,887	$ 356,927	$ 431,942
$ 3.00	$ 371,897	$ 346,697	$ 431,942

@$5.30/gallon Fuel Price

Power Rate ($/kWh)	Expense w/o Heat Recovery	Expenses w/ Heat Recovery**	Projected Revenue
$ 0.1736	$ 466,173	$ 407,853	$ 431,942
$ 0.2604	$ 476,284	$ 417,964	$ 431,942
$ 0.3472	$ 486,395	$ 428,075	$ 431,942
$ 0.5208	$ 506,617	$ 448,297	$ 431,942

**Note: These Charts are based upon AVEC having a Base Fuel Price = $2.50/gal. For 2007 the Base Fuel Price is expected to be $2.50 per gallon.



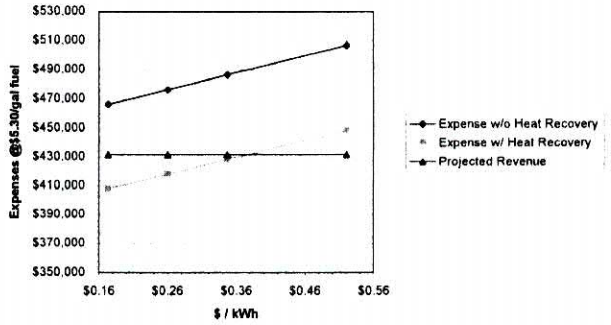


$ 0.1539 / kWh

# - Services	$3.00/gal	Revenue	$3.40/gal	$4.25/gal	$4.75/gal	$5.30/gal
0	$310,828	$431,942	$317,088	$330,391	$338,216	$346,823
40	$346,697	$461,942	$356,927	$378,663	$391,450	$405,515
100	$400,501	$506,942	$416,684	$451,072	$471,301	$493,552
150	$445,338	$544,442	$466,482	$511,413	$537,844	$568,917

NOTE: FOR ALL SHEETS OF THE WORKBOOK, THE CELLS THAT ARE PAINTED YELLOW DEFINE NAMED VARIABLES USED THROUGHOUT THE WORKBOOK

NOTE: THESE CHARTS DO NOT UPDATE AUTOMATICALLY AND CAN ONLY BE CHANGED WHEN DIFFERENT VALUES FOR EXPENSES AND REVENUES ARE INPUT AFTER THE FUEL AND ELECTRICAL PRICES ARE VARIED IN THE PRECEDING WORKSHEETS.



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